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# Guidance for the Reregistration of Pesticide Products Containing Dicamba as the Active Ingredient

(U.S.) Environmental Protection Agency
Washington, DC

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U.S. Department of Commerce
National Technical Information Service
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# GUIDANCE FOR THE REREGISTRATION OF PESTICIDE PRODUCTS

# CONTAINING

# DICAMBA

# AS THE ACTIVE INGREDIENT

ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF PESTICIDE PROGRAMS
WASHINGTON, D.C. 20460

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This document contains information regarding reregistration of pesticide products containing the subject active ingredient. The document includes how to register under a registration standard, regulatory position and rationale, and summaries of data requirements and data gaps. Also included is a bibliography containing citations of all studies reviewed by EPA in arriving at the positions and conclusions contained in the standard.

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Note: Appendices V-1, V-5 and V-6 are not germane to this document and are not included.

# INTRODUCTION

The Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA Section 3(g), as amended in 1978, directs EPA to reregister all pesticides as expeditiously as possible. Each registrant of a manufacturing use product of the active ingredient who wishes to continue to sell or distribute that product must apply for reregistration.

To fulfill this Congressional mandate, we have established the Registration Standards program which will review all pesticide active ingredients first registered before January 1, 1977. These pesticides will be reviewed in use clusters which are prioritized on the basis of a ranking scheme giving preference to pesticides used on food and feed crops.

The Registration Standards program involves a thorough review of the scientific data base underlying pesticide registrations and an identification of essential but missing studies which may not have been required when the product was initially registered or studies that are now considered insufficient. Our reassessment results in the development of a regulatory position, contained in this document, on each pesticide and its uses. The regulatory position may require the registrant to modify product labels to provide additional precautionary statements, restrict the use of the pesticide to certified applicators, provide reentry intervals, modify uses or formulation types, specify certain packaging limitations, or other requirements to assure that proper use of the pesticide poses no potential adverse effects to human health or the environment.

The scientific review, which is not contained herein but is available upon request, concentrates on the technical grade of the active ingredient and identifies missing generic data. However, during the review of these data we are also looking for potential hazards that may be associated with the formulated (end-use) products that contain the active ingredient. If we find serious concerns, we will bring formulated products under the provisions of the Registration Standards program to the extent necessary to protect the public.

EPA has the authority under FIFRA §3(c)(2)(B) to require that certain registrants submit generic data that will answer our questions regarding the hazard that may result from the intended use of the pesticide under review. Further, §3(c)(2)(B) provides that these data are to be submitted by those registrants who do not qualify for the formulator's exemption [FIFRA §3(c)(2)(D)]. Normally, this means that the registrants who are responsible for filling the data gaps are the manufacturing-use product producers (basic suppliers of the active ingredient). However, end-use producers will not qualify for the formulator's exemption if the source of their active ingredient: (1) is not registered with EPA, and/or (2) is produced by the registrant's firm, or a firm which has ownership in common with the registrant's firm. These end-use producers can qualify for the formulator's exemption if they change their source of supply to a registered source, provided the source does not share ownership in common with the registrant's firm. If the end-use product registrant decides to switch sources, a new Confidential Statement of Formula, EPA Form 8570-4, must be submitted to the appropriate Product Manager within 90 days of receipt of this Guidance Document. The chart on the following page shows what is generally required of those who do and do not qualify for the formulator's exemption in the Registration Standards program.

If you decide to request the Agency to discontinue the registration of any of your products subject to the reregistration requirements of this Guidance Document, please notify the Product Manager named in the cover letter, within 90 days from the receipt of this document, that you wish to voluntarily cancel the registration(s). If you decide to maintain your product registration(s), you must provide the information described in the following pages within the time-frames outlined. EPA will issue a notice of intent to cancel or suspend the registration of any currently registered product if you fail to comply with the requirements set forth in this Guidance Document.

This Guidance Document will be supplemented by EPA with additional information about compliance with data support requirements. In Monsanto v. Administrator, EPA was recently enjoined from implementing in any way the "mandatory data licensing" aspects of §3(c)(1)(D) of FIFRA. EPA is assessing the implications of the injunction for the reregistration process. Because this situation is currently unresolved, EPA has decided to proceed with the requirements in this Guidance Document which do not relate to compliance with the §3(c)(1)(D) provisions and to supplement the Document with additional guidance when circumstances permit. Failure to comply with the provisions of the subsequent guidance will also result in issuance by EPA of an intent to cancel the affected product registration(s).

Registrants are reminded that §6(a)(2) of FIFRA requires you at any time to submit factual information raising concerns of possible unreasonable adverse effects of a pesticide. You should notify the Agency of interim results of studies in progress if those results show possible adverse effects.

| PRODUCTS SUBJECT TO THE REGISTRATION STANDARDS PROGRAM | ACTION(S) REQUIRED TO MAINTAIN REGISTRATION |
|---|---|
| I. Products That Do Not Qualify For The Formulator's Exemption | |
| A. Single Active Ingredient Products* | These products must be reregistered. To obtain reregistration, labeling, packaging and data requirements must be satisfied in accordance with the Registration Standards Guidance Document. |
| B. Multiple Active Ingredient Products | These products will not be reregistered at this time. However, generic data required to continue the registration of the active ingredient under review, as described in the Registration Standards Guidance Document, will be required and some labeling precautions may also be required. |
| II. Products That Do Qualify For The Formulator's Exemption | Only when additional restrictions or labeling are needed to protect man or the environment will these products be subject to the Registration Standard requirements. Affected products will be dealt with in a variety of ways, including but not limited to the Label Improvement Program and special intent to cancel notices. |

* End-use products of registrants who also produce a manufacturing-use product will not be required to be reregistered provided that registrant fulfills the requirements specified in the Guidance Document for manufacturing-use product(s). Such end-use products will be subject to the labeling changes required for products in "II" above. If there are no manufacturing-use products registered by any company end-use products will be required to be reregistered.

NOTE: If all registrants in "I" above fail to meet the requirements in I-A and B above, then the registrants in "II" lose their right to qualify for the formulator's exemption and become subject to the requirements in I-A and B.

## II. Regulatory Position and its Rationale

### A. INTRODUCTION

This chapter describes the regulatory position of the Environmental Protection Agency ("the Agency") on dicamba based on the evaluation of all registered manufacturing-use products (MUP's) containing dicamba as the sole active ingredient. Future requests for registrations of substantially similar products will be covered by this standard. Dissimilar products will require amendments to the standard. This document provides the rationale for the Agency's position and the criteria for registration. It also discusses labeling requirements and tolerances.

"Dicamba" is the accepted common name for the compound 3,6,-dichloro-oanisic acid recognized by the American National Standard Institute (ANSI). Trade and other names used for dicamba are Banvel, Banex, Brush Buster, Mediben, Velsicol 58CS-11 and Dianat (USSR). The Chemical Abstracts Service (CAS) Registry number is 1918-00-9. The Office of Pesticide Programs' Internal Control Number (EPA Shaughnessy number) is 029802.

### B. USE PROFILE

Dicamba, a benzoic herbicide, is used on various sites to control a broad spectrum of woody plants and certain annual, biennial and perennial broadleaf weeds. Dicamba is registered for use on the crop sites: corn (field, silage), small grains (wheat, oats, barley), grain sorghum, asparagus, sugarcane, pastures, rangeland and agricultural seed-crops (perennial ryegrass, bentgrass, Kentucky bluegrass, fescue, forage-fodder grasses); and in the noncrop sites: fallow cropland, wastelands, fencerows, vacant lots, storage areas, around buildings, playgrounds, driveways, alleys, and roadways, rightsof-way (utility, railroad, highway, pipeline); forest lands, drainage ditch banks, lawns and ornamental turf (cemeteries, golf courses, parks, bowling greens). Dicamba is applied pre-emergence or post-emergence to the crop before or after weed emerge.

Dicamba was patented by Velsicol Chemical Corporation (U.S.Patent Nos. 3,013,054 and 3,297,427) and first registered in 1967. Technical dicamba is manufactured by Velsicol Chemical Corporation.

Dicamba is registered as a technical material, at 85% active ingredient and as a manufacturing-use product containing 60% dicamba for formulation of herbicides. Several basic salts are used in formulations - the diethanolamine, the monoethanolamine, the dimethylamine as well as the sodium salts. It has been concluded that the salts and free acid are toxicologically equivalent for the scope of the standard because the salt hydrolyzes to the free acid in an aqueous environment. As a sole active ingredient dicamba is registered in soluble concentrate, granular and pelleted forms. Multiple active forms also include emulsifiable concentrates.

## C. REGULATORY POSITION

Based on a review and evaluation of the available data and other relevant information on dicamba, the Agency has made the following determinations:

1. Manufacturing-use pesticide products containing dicamba as a sole active ingredient may be registered for sale, distribution, formulation and use in the United States, subject to the terms and conditions specified in this standard. Applicants having products not conforming to this standard must apply to amend the documents so those products containing dicamba may be registered and reregistered under this standard. Mixtures and end-products containing dicamba are not covered by this standard.

2. Available data do not show that any of the risk criteria listed in Section 162.11(a) of Title 40 of the U.S. Code of Federal Regulations have been met or exceeded for the uses of dicamba specified in this standard.

3. The available toxicity data are insufficient to fully assess the chronic human risk of dicamba. When additional studies are submitted, a complete risk assessment will be made.

4. There are insufficient data to fully assess the environmental fate of dicamba and the exposure of humans and nontarget organisms to dicamba. When additional studies are submitted, a complete environmental exposure assessment will be made.

5. There is sufficient information to characterize the toxicity of the acids and salts as slightly toxic to avian wildlife, aquatic invertebrates, warm and coldwater finfishes, and estuarine/marine organisms for non-aquatic uses. There is insufficient information to characterize the toxicity to fish or aquatic invertebrates from aquatic uses of dicamba. A full assessment will be made once required fate data and nontarget organism data are submitted.

6. Although there are product chemistry data gaps, the available product chemistry data provide a sufficient understanding of the chemical.

7. Certain residue data are required on sorghum milling fractions. Food/feed additive tolerances may be required once this study is submitted. Residue data on poultry and eggs and a poultry feeding study are needed. The need for tolerances on these commodities will be assessed when the data are submitted.

8. Registrants must provide or agree to develop additional data, as specified in the tables attached to this standard, in order to maintain existing registrations or to permit new registrations.

## D. REGULATORY RATIONALE

The Agency has determined the following:

1. The available data indicate that technical dicamba is a severe eye irritant but has low oral and primary skin irritation toxicities. Available supplementary data indicate low dermal and inhalation toxicities. Technical Dicamba is classified under Toxicity Catetory I based on eye irritation. Additional subchronic dermal testing is required.

   Data to support the establishment of reentry protection standards are not required because the Agency has determined, based on the use patterns and available toxicology data for dicamba, that the criteria in 158.14 are not met.

   A three-generation reproduction study (00028249) in male and female rats showed no evidence of toxicity among the rats from any of the generations utilized in the study. No test-article related effects were evident for any of the reproduction indicies examined during the course of the study. The findings of this study indicate a no-observable effect level of 25 mg/kg/day.

   A teratology study (00028236) in female rabbits was done at levels of 0, 1.0, 3.0, and 10.0 mg/kg/day. The 10 mg/kg/day dose caused slightly reduced fetal body weights and increased post-implantation loss. Dicamba was not found to be teratogenic in this study. The no-observed effect level was 3.0 mg/kg/day for maternal toxicity.

   A 90-day subchronic feeding study (00128093) with male and female rats was done at dosages of 1000, 5000, 10,000 and 0 ppm. There were no compound related changes in general behavior and appearance. The high dose groups showed a slight decrease in comparative body weight gains and food consumptions. There were no gross lesions or organ weight gains variations in treated groups. There was an absence or reduction of cytoplasmic vacuolation of hepatocytes indicating reduced glycogen storage in high-dose groups. The no-observed effect level was 250 mg/kg/day (systemic).

   A chronic rat study with dicamba was conducted by IBT. At present this study cannot be used to satisfy a data requirement. The Agency considers the study to be presumptively invalid pending receipt of the raw data necessary to review the study.

2. The manufacturing process for dicamba has the potential of resulting in traces of 2,7-dichlorodibenzo-p-dioxin as a contaminant. 2,7-dichlorodibenzo-p-dioxin is present at levels to 50 (ppb) part per billion. The more toxic dioxin isomer 2,3,7,8-tetrachlorodibenzo-pdioxin has not been found at the limit of detection (2 ppb) of the method and is not expected as an impurity in dicamba. Dicamba products formulated with dimethylamine have the potential of adding a dimethylnitrosoamine (DMNA) contaminant. Nitrosoamine levels in the dimethylamine formulations are expected to be

less than 1 ppm. The risk levels for the dicamba products with the nitrosoamine contaminant are in the $1 \times 10^{-7}$ - $1 \times 10^{-8}$ range. The Agency considers the benefits to outweigh the risks associated with the nitrosoamines. The product performance of dicamba containing herbicides is such that they are viable alternatives to several of the suspended uses of silvex and 2,4,5-T. Suspended uses for which dicamba is appropriate include weed control in home lawns, pastures, and along ditchbanks and brush control in forests.

3. Dicamba applications to corn, small grains, sorghum, sugarcane, asparagus, agricultural seed crops, rights-of-way, turf areas, forest areas, pasture and rangeland can result in exposure to non-target organisms from residues of direct applications, spray drift from treated areas and runoff from treated areas. Available acute toxicity data indicate that dicamba is practically non-toxic to fish and wildlife and unlikely to directly affect these organisms. Endangered species are not expected to be affected by any dicamba use.

4. Dicamba may not be used in any way which contaminates irrigation ditches or water for domestic purposes. Pending submission of complete rotation crop data, crops for which dicamba is not registered may not be planted in dicamba-treated fields.

5. It is not the Agency's policy to cancel or withhold registration merely because data are missing or inadequate (see Section 3(2)(B) and 3(C)(7) of the FIFRA). Rather, publication of this standard provides a mechanism for identifying data needs and registration under the standard and allows for the upgrading of labels during the period in which the required data are being developed. These data will be reviewed and evaluated when they are received and the Agency will determine at that time whether they will affect the registration(s) of dicamba.

## E. CRITERIA FOR REGISTRATION UNDER THIS STANDARD

To be subject to this standard, products must meet the following conditions:

1. Contain dicamba as the sole active ingredients, and
2. Conform to the acute toxicity limits, product composition, and use pattern requirements listed in Section F of this document.

The applicant for registration or reregistration of products subject to this standard must comply with all terms and conditions described in it, including committing to fill data gaps on a schedule agreed to by both this Agency and the applicant. Applicants for registration under this standard must follow the instructions contained in this standard and complete and submit the appropriate forms within the time specified. Formulated products shall contain less than 1 ppm nitrosoamine contamination.

## F. ACCEPTABLE RANGES AND LIMITS

### 1. Product Composition Standard

Technical grade products must contain at least 85 percent dicamba as the sole active ingredient to be registrable under this standard. Each manufacturing-use product formulation proposed for registration must be fully described with an appropriate certification of limits. In addition, the active ingredient found in the manufacturing-use dicamba products must be substantially similar to that found in currently registered technical products. Any manufacturing-use product not meeting these requirements will be considered a new product and will not be registrable under this standard. Formulated products shall contain less than 1 ppm nitrosoamine contamination.

### 2. Acute Toxicity Limits

The Agency will consider registrations of technical grade and manufacturing-use products containing dicamba within acute Toxicity Category I for ey irritation, Toxicity Category III for acute oral and skin irritation, and Toxicity Category IV for acute dermal and acute inhalation provided the labeling of those products bears appropriate precautionary statements.

### 3. Use Patterns

To be registered under this standard, manufacturing-use products containing dicamba may be labeled for formulation only into end-use products for herbicides used for control of woody plants, annual, biennial, and perennial broadleaved weeds on both crop and non-crop sites. Dicamba is registered for use on the crop sites: corn (field, silage), small grains (wheat, oats, barley), grain sorghum, asparagus, sugarcane, pastures, rangeland and agricultural seed-crops (perennial ryegrass, bentgrass, Kentucky bluegrass, fescue, forage-fodder grasses); and in athe noncrop sites: fallow cropland, wastelands, fencerows, vacant lots, storage areas, around buildings, playgrounds, driveways, alleys, and roadways, rights-of-way (utility, railroad, highway, pipeline); forest lands, drainage ditch banks, lawns and ornamental turf (cemeteries, golf courses, parks, ditch banks).

## G. REQUIRED LABELING

All technical grade manufacturing-use, and end-use products containing dicamba must bear appropriate labeling as specified in 40 CFR 162.10. Other protions of the guidance package contain specific information regarding label requirements.

In addition, the following label comments should be incorporated into dicamba product labels.

1. Manufacturing-use products should include the following statements on their labels.

> Do not discharge into lakes, streams, ponds, or public waters unless in accordance with an NPDES permit. For guidance contact your regional office of EPA.

2. The labeling must list specific currently registered crops that this product is intended to be used on after manufacture into end-use products. Labels not listing specific crops will be considered to be for manufacture into end-use products for all registered use sites.

## H. TOLERANCE REASSESSMENT

In the United States, tolerances are established for dicamba in or on the commodities listed below:

| | |
|---|---|
| 0.1 ppm | Sugarcane, sugarcane fodder, sugarcane forage |
| 0.2 ppm | Fat of cattle, goats, hogs, horses, sheep; meat byproducts of cattle, goats, hogs, horses, sheep; meat of cattle, goats, hogs, horses, sheep. |
| 0.3 | Milk |
| 0.5 | Barley grain, barley straw, corn fodder, corn forage, corn grain, oats grain, oats straw, wheat grain, wheat straw. |
| 1.5 | Kidney of cattle, goats, hogs, horses, sheep; liver of cattle, goats, hogs, horses, sheep. |
| 2.0 | Sugarcane molasses (food/feed additive tolerance). |
| 3.0 | Asparagus, sorghum fodder, sorghum forage, sorghum grain |
| 40.0 | Grasses, hay; grasses, pasture; grasses, rangeland. |

The available residue data support the existing tolerances listed above. Tolerances on sorghum milling fractions, poultry, and eggs may be required once the requested residue data and poultry feeding study are submitted. Tolerances on soybeans and cotten seed are under review by the Agency.

The rat subchronic study with a systemic no-observable effect level (NOEL) of 500 ppm and a 2000-fold safety factor yields a provisional allowable daily intake (PADI) of 0.0125 mg/kg/day and a MPI of 0.7500 mg/day. The theoretical maximum residue contribution (TMRC) for existing tolerances (1.5 kg diet) is calculated to be 0.2816 mg/day, which utilizes 37.55% of the PADI.

## DICAMBA AND RELATED ACIDS**, DIMETHYLAMINE SALT*

TYPE PESTICIDE: Herbicide

FORMULATIONS: FI (4 lb/gal, 6 lb/gal); G (0.015%, 0.016%, 0.019%, 0.028%, 0.0332%, 0.049%, 0.053%, 0.054%, 0.056%, 0.06%, 0.07%, 0.071%, 0.072%, 0.09%, 0.1062%, 0.108%, 0.119%, 0.125%, 0.2%, 0.21%,0.236%, 0.25%, 0.306%, 0.32%, 0.33%, 0.437%, 0.7%, 0.7112%, 0.812% , 2.83%); EC (0.045 lb/gal, 0.06 lb/gal, 0.094 lb/gal, 0.097 lb/gal, 0.11 lb/gal, 0.145 lb/gal, 0.25 lb/gal, 0.26 lb/gal, 0.5 lb/gal, 1.5 lb/gal, 4 lb/gal, 0.26%, 14.22%); SC/L (0.015 lb/gal, 0.018 lb/gal, 0.021 lb/gal, 0.03013 lb/gal, 0.0375 lb/gal, 0.045 lb/gal, 0.0465 lb/gal, 0.052 lb/gal, 0.059 lb/gal, 0.06 lb/gal, 0.07 lb/gal, 0.075 lb/gal, 0.08 lb/gal, 0.09 lb/gal, 0.093 lb/gal, 0.094 lb/gal, 0.097 lb/gal, 0.098 lb/gal, 0.168 lb/gal, 0.17 lb/gal, 0.184 lb/gal, 0.19 lb/gal, 0.21 lb/gal, 0.22 lb/gal, 0.23 lb/gal, 0.25 lb/gal, 0.26 lb/gal, 0.284 lb/gal, 0.32 lb/gal, 0.34 lb/gal, 0.5 lb/gal, 0.918 lb/gal, 1 lb/gal, 1.25 lb/gal, 1.5 lb/gal, 4 lb/gal, 1.66%, 1.95%, 2.4%, 56.9%); RTU (0.918 lb/gal, 4 lb/gal, 0.025%, 0.064%, 0.066%); PrL (0.029%, 0.31%, 0.36%, 0.52%, 0.64%, 0.74%)

GENERAL WARNINGS AND LIMITATIONS: A systemic herbicide used for selective control of broadleaf weeds and woody plants. Optimal control is achieved when weeds are young and actively growing. Resistant weeds, perennials, and woody plants will require the higher dosages and repeated applications. Avoid application to desirable trees and shrubs, and their root zones. Avoid spray drift to susceptible plants such as beans, cotton, grapes, peas, potatoes, soybeans, sunflowers, tobacco, tomatoes, and flowers. To minimize hazard of spray drift, do not apply when daily temperature is expected to exceed 85 F (29.4 C). Consult State Agricultural Cooperative Extension Service for local recommendations. Dosages for this chemical were calculated using the acid equivalent (a.e.).

Livestock Tolerances:

0.05 ppm in milk.

TIME REQUIRED FOR CONTROL: Not located.

PHYTOTOXICITY TO TARGET WEEDS: Epinasty of young shoots and proliferative growth.

PHYTOTOXICITY TO CROPS: Not located.

MODE OF ACTION: Induces auxin-like growth abnormalities.

*Banvel D
3,6-dichloro-o-anisic acid, dimethylamine salt
2-methoxy-3,6-dichlorobenzoic acid, dimethylamine salt
**Related acids were included in formulation and dosage calculations.

## DICAMBA AND RELATED ACIDS, DIMETHYLAMINE SALT

### BROADLEAF WEEDS CONTROLLED:

| | |
|---|---|
| PCQBIBE | alfalfa |
| PAAAAAB | annual broadleaf weeds |
| PZAAAAE | annual clover |
| PBFBHBA | annual fleabane |
| PZAAAAG | annual mustards |
| PBFDCBC | annual sowthistle |
| PBFAJBB | annual wormwood |
| PEMADDA | bedstraw |
| PBGACAA | bindweed |
| PBFBZBA | bitter rubberweed |
| PBFBJBA | bitter sneezeweed |
| PBFARBH | black knapweed |
| PCQBIBB | black medic |
| PBKAFBF | black mustard |
| PEWAIBE | black nightshade |
| PAZALBD | bladder campion |
| PARAFBA | blue thistle |
| PDXABBA | bracted plantain |
| PBFABBB | bristly starbur |
| PEAAHBI | broadleaf dock |
| PDXABBD | broadleaf plantain |
| PBFBRBC | broom snakeweed |
| PDXABBC | buckhorn plantain |
| PEAAAAB | buckwheat |
| PEWAIBF | buffalobur |
| PBFAWBG | bull thistle |
| PCQBIAA | burclover |
| PBFAIAA | burdock |
| PCQBIBD | california burclover |
| PBFDBBA | canada goldenrod |
| PBFAWBB | canada thistle |
| PBZACBA | carolina geranium |
| PADABBA | carpetweed |
| PAZAAAC | chickweed |
| PBFAVBA | chicory |
| PAMAIBA | climbing milkweed |
| PCQAAAB | clover |
| PBFDQAA | cocklebur |
| PBFBRBA | common broomweed |
| PBFAIBB | common burdock |
| PAZAOBB | common chickweed |
| PBFDQBD | common cocklebur |
| PBFDHBB | common dandelion |
| PDNAFBB | common eveningprimrose |
| PBSBSBA | common goldenweed |
| PBDAEBA | common lambsquarters |
| PDAAHBB | common mallow |
| PAMACBL | common milkweed |
| PEDADBA | common purslane |
| PBFAEBA | common ragweed |
| PBSDUBA | common spikeweed |

## DICAMBA AND RELATED ACIDS, DIMETHYLAMINE SALT

### BROADLEAF WEEDS CONTROLLED (continued)

| | |
|---|---|
| PBFBUBA | common sunflower |
| PBSAJBA | common wormwood |
| PBFACBB | common yarrow |
| PDPABBG | common yellow woodsorrel |
| PBFAHBA | corn chamomile |
| PAZABBA | corn cockle |
| PAZAPBA | cow cockle |
| PAAAABG | creeping charlie |
| PBFBPAA | cudweed |
| PEAAHBE | curly dock |
| PDNAFBD | cutleaf eveningprimrose |
| PEUAIBB | dalmatian toadflax |
| PBFDHAA | dandelion |
| PBFARBC | diffuse knapweed |
| PBFBIBB | dogfennel |
| PDAAHBE | dwarf mallow |
| PBFANBA | english daisy |
| PEAAGBJ | erect knotweed |
| PDNAFAA | eveningprimrose |
| PBGACBB | field bindweed |
| PAZADBA | field chickweed |
| PBKBFBA | field pennycress |
| PBKAWBA | field pepperweed |
| PCQAUBC | florida beggarweed |
| PEMAEBB | florida pusley |
| PBFAEBE | giant ragweed |
| PBFDBAA | goldenrod |
| PEAAGBS | green smartweed |
| PCQCABE | hairy vetch |
| PBFBXAA | hawkweed |
| PBGACBD | hedge bindweed |
| PAIABBB | hemp dogbane |
| PCQBSBB | hemp sesbania |
| PCOAFBA | henbit |
| PBKAJBA | hoary cress |
| PAMABBA | honeyvine milkweed |
| PCQBYBA | hop clover |
| PBFAYBA | horseweed |
| PBFDNAA | ironweed |
| PBGAFBG | ivyleaf morningglory |
| PBFBUBG | jerusalem artichoke |
| PEWADBD | jimsonweed |
| PBFARAA | knapweed |
| PAZAKBA | knawel |
| PEAAGAC | knotweed |
| PBDAIBA | kochia |
| PEAAGBP | ladysthumb |
| PBDAEAB | lambsquarters |
| PBFBIBI | late eupatorium |
| PZAAABY | lawn burweed |
| PBVAGBE | leafy spurge |

## DICAMBA AND RELATED ACIDS, DIMETHYLAMINE SALT

### BROADLEAF WEEDS CONTROLLED (continued)

| | |
|---|---|
| PAZAOBA | little starwort |
| PBFAJBI | louisiana wormwood |
| PBFAHBB | mayweed |
| PDIASAA | melaleuca |
| PBFDABA | milk thistle |
| PBFDBBD | missouri goldenrod |
| PBGAAAB | morningglory |
| PAZADBC | mouseear chickweed |
| PBFAQBC | musk thistle |
| PBKAAAC | mustard |
| PBDAEBI | nettleleaf goosefoot |
| PAZALBG | nightflowering catchfly |
| PEAAGBO | pennsylvania smartweed |
| PBKAWAA | pepperweed |
| PAAAAAD | perennial broadleaf weeds |
| PZAAACI | perennial chickweed |
| PBFAEBD | perennial ragweed |
| PEAAGAF | perennial smartweed |
| PBFDCBA | perennial sowthistle |
| PAAAABI | pigweed |
| PBFAQBA | plumeless thistle |
| PDTABAA | pokeweed |
| PEMACBA | poorjoe |
| PBFAWBH | prairie thistle |
| PDAAJBF | prickly sida |
| PEAAGBD | prostrate knotweed |
| PAFACBC | prostrate pigweed |
| PBVAGBQ | prostrate spurge |
| PFMAFBB | puncturevine |
| PAAAABP | purslane |
| PBFAEAA | ragweed |
| PEAAHBB | red sorrel |
| PAFACBI | redroot pigweed |
| PEAABBA | redvine |
| PAFACAB | rough pigweed |
| PBFCCBB | rough sumpweed |
| PEHAGBG | roughseed buttercup |
| PBFARBI | russian knapweed |
| PBDAKBA | russian thistle |
| PDKAHBA | shepherdspurse |
| PCQAMBF | sicklepod |
| PEWAIBD | silverleaf nightshade |
| PCQBHBA | silvery lupine |
| PBFBMBC | skeletonleaf bursage |
| PBFAKBB | slender aster |
| PCQBYBD | small hop clover |
| PEAAGAD | smartweed |
| PEMADBD | smooth bedstraw |
| PAFACBE | smooth pigweed |
| PBFDCAA | sowthistle |
| PZAAAGE | spanish nettle |

## BROADLEAF WEEDS CONTROLLED (continued)

| | |
|---|---|
| PBFAOBA | spanishneedles |
| PBFAKBL | spiny aster |
| PAFACBJ | spiny amaranth |
| PBFDCBB | spiny sowthistle |
| PBFARBF | spotted knapweed |
| PBVAGBK | spotted spurge |
| PBVAGAA | spurge |
| PAZAMAA | spurry |
| PFGAEBA | stinging nettle |
| PBFBUAA | sunflower |
| PEAAGBG | swamp smartweed |
| PCQBJAA | sweetclover |
| PEHAGBB | tall buttercup |
| PBGAFBL | tall morningglory |
| PBFCXBC | tansy ragwort |
| PDKANBB | tansymustard |
| PEAAFBA | tartary buckwheat |
| PBOABBB | teasel |
| PBFBUBC | texas blueweed |
| PAAAAAX | thistle |
| PBGAFBQ | tievine |
| PBVAEBB | tropic croton |
| PAFACBA | tumble pigweed |
| PDAABBB | velvetleaf |
| PDAAEBC | venice mallow |
| PCQCAAA | vetch |
| PFJABAA | violet |
| PBKAWBG | virginia pepperweed |
| PBFAEBC | western ragweed |
| PAMACBK | western whorled milkweed |
| PCQBYBJ | white clover |
| PAZAHBA | white cockle |
| PBSAKBH | white heath aster |
| PEAAGBH | wild buckwheat |
| PFFANBA | wild carrot |
| PBLADBA | wild cucumber |
| PBKAFBE | wild mustard |
| PBKBABA | wild radish |
| PDPABAA | woodsorrel |
| PBSBMBF | woolly bursage |
| PBVAEBA | woolly croton |
| PBFBIBC | yankeeweed |
| PBFACAA | yarrow |
| PBFARBJ | yellow starthistle |

## DICAMBA AND RELATED ACIDS, DIMETHYLAMINE SALT

### GRASSES AND OTHER MONOCOTS CONTROLLED:

| | |
|---|---|
| PCAATBK | cheat |
| PCAATBM | downy brome |
| PCAAAAJ | hairgrass |
| PCABMBB | rattail fescue |
| PCAATBI | ripgut brome |
| PCTABEE | wild garlic |
| PCAAOBB | wild oat |
| PCTABBB | wild onion |
| PCAAJBA | windgrass |

### WOODY PLANTS CONTROLLED:

| | |
|---|---|
| PELAPBA | american plum |
| PDMACAA | ash |
| PEDABAA | aspen |
| PFCABAA | basswood |
| PBWADAA | beech |
| PCQBQBA | black locust |
| PELATAC | blackberry |
| PBHADBB | blackgum |
| PBWAFCB | blackjack oak |
| PAHACBB | brazil peppertree |
| PAAAAAJ | brush |
| PAYAEBC | buckbrush |
| PDUAAAB | cedar |
| PELAPAA | cherry |
| PBWABAB | chinquapin |
| PEOABAA | cottonwood |
| PFMACBA | creosotebush |
| PCZACBA | cucumbertree |
| PELATAC | dewberry |
| PBHABAA | dogwood |
| PBPABBB | eastern persimmon |
| PDUADBK | eastern redcedar |
| PDUAHBQ | eastern white pine |
| PFEAEAA | elm |
| PBFAJBH | fringed sagebrush |
| PFKAEAA | grape |
| PELAIAA | hawthorne |
| PCKABAA | hickory |
| PAYACAA | honeysuckle |
| PBIADAA | hornbeam |
| PBUAKAB | huckleberry |
| PCQACBE | huisache |
| PCQBPBA | kudzu |
| PEJAEBB | lotebush condalia |
| PELASBC | macartney rose |
| PACABAA | maple |
| PCQBNBA | mesquite |
| PELASBK | multiflora rose |

## WOODY PLANTS CONTROLLED (continued)

| | |
|---|---|
| PBWAFAA | oak |
| PBIACBE | paper birch |
| PBPABAA | persimmon |
| PDUAHAA | pine |
| PAHABBI | poison ivy |
| PAHABBJ | poison oak |
| PEOABAA | poplar |
| PBWAFCQ | post oak |
| PBFAUAA | rabbitbrush |
| PBIABBC | red alder |
| PACABBG | red maple |
| PELAPBC | sand plum |
| PCPADBA | sassafras |
| PELAEAA | serviceberry |
| PACABBI | sugar maple |
| PAHABAA | sumac |
| PCEACBA | sweetgum |
| PDYABAA | sycamore |
| PBFBLBA | tarbush |
| PAQACBA | trumpetcreeper |
| PDHACAA | waxmyrtle |
| PDMACBA | white ash |
| PEOACAA | willow |
| PECABAA | witchhazel |
| PAJABBE | yaupon |
| PBIACBA | yellow birch |
| PCTAMAA | yucca |

## AQUATIC WEEDS CONTROLLED:

| | |
|---|---|
| PDNADBD | creeping waterprimrose |
| PAFAGAA | water hemp |
| PFFAKAA | waterhemlock |
| PDNADBB | winged waterprimrose |

## NONFLOWERING PLANTS CONTROLLED:

| | |
|---|---|
| PEBAHAA | bracken |

## DICAMBA AND RELATED ACIDS, DIMETHYLAMINE SALT

| | Site, Dosage and Formulation (lb a.e./A) | Tolerance, Use, Limitations |
|---|---|---|
| | AGRICULTURAL CROPS | |
| /16002AA | Asparagus | 3 ppm<br>Twenty-four hour preharvest interval. |
| | 0.25-0.5<br>(4 lb/gal SC/L) | Use limited to CA, OR, and WA. Postcutting. Directed spray. Apply in 40 to 60 gallons of water, after cutting and at least 24 hours before the next cutting. Discard any spears that may have been contacted by the chemical. Make only 1 application per season. May be tank mixed with 2,4-dichlorophenoxyacetic acid. |
| | 1 part product/<br>1 part water<br>(4 lb/gal SC/L) | Spot treatment. Wiper application for control of broadleaf weeds, brush and vines. |
| /28063AA | Barley | 0.5 ppm (grain and straw)<br>Do not graze or harvest for dairy feed prior to the milk stage.<br>General Information: Injury may result if applications are made when crop is under stress. Apply in 5 to 40 gallons of water or fluid fertilizer per acre by ground, or 3 to 10 gallons by air. |
| | 1 part product/<br>1 part water<br>(4 lb/gal SC/L) | Spot treatment. Wiper application for control of broadleaf weeds, brush and vines. |
| | (spring seeded) | |
| | 0.094<br>(4 lb/gal SC/L) | Postemergence. Broadcast. Apply at the 2- to 3-leaf stage. |
| | 0.063-0.094<br>(4 lb/gal SC/L) | Postemergence. Broadcast. Tank mix with 2-methyl-4-chlorophenoxyacetic acid. Apply at the 2- to 3-leaf stage. |
| | (fall seeded) | |
| | 0.125<br>(4 lb/gal SC/L) | Postemergence. Broadcast. Apply before the joint stage. |
| | 0.063-0.125<br>(4 lb/gal SC/L) | Postemergence. Broadcast. Tank mix with 2,4-dichlorophenoxyacetic acid or 2-methyl-4-chlorophenoxyacetic acid. Apply before the joint stage. |

| | Site, Dosage and Formulation (lb a.e./A) | Tolerance, Use, Limitations |
|---|---|---|
| | Barley (continued) | |
| | 0.125<br>(14.22% EC) | Use limited to areas other than AZ and CA. Postemergence. Broadcast. Apply immediately after winter dormancy and prior to the joint stage. Formulated with 2,4-dichlorophenoxyacetic acid, dimethylamine salt. |
| /22038BA<br>/33016BA | Bentgrass (seed crop) | N.F. (seed)<br>40 ppm (hay)<br>Do not graze or harvest for dairy feed prior to crop maturity. |
| | 0.23<br>(1.25 lb/gal SC/L) | Use limited to ID, OR, and WA. Postemergence. Broadcast. Apply in 20 gallons of water per acre, after winter dormancy and up to the early boot stage. Apply only to stands that have been established for at least 1 year.<br>Formulated with 2-methyl-4-chlorophenoxyacetic acid, dimethylamine salt. |
| /22026BA<br>/33019BA | Bluegrass (seed crop) | N.F. (seed)<br>40 ppm (grass hay)<br>Do not graze meat animals in treated fields within 30 days of slaughter. Do not use seed from treated grasses for feed or food purposes. The period between treatment and the grazing of lactating dairy animals is dependent upon the amount of dicamba acid that is applied per acre. These guidelines should be followed: Amounts up to 0.5 pound - 7 days; 1 pound - 21 days; 2 pounds - 40 days; and 8 pounds - 60 days. The period between treatment and the harvesting of hay for lactating dairy animals is also dependent upon the amount of dicamba acid that is applied per acre. These guidelines should be followed: Amounts up to 0.5 pound - 37 days; 1 pound - 51 days; 2 pounds - 70 days; and 8 pounds - 90 days.<br>General Information: Do not apply after jointing begins. |
| | 0.23-1.00<br>(0.918 lb/gal SC/L)<br>(4 lb/gal SC/L) | Postemergence. Broadcast. Apply in 5 to 40 gallons of water per acre. For seedling grasses, use the lower dosage and apply after the crop is at the 3- to 5-leaf stage. |

| | Site, Dosage and Formulation (lb a.e./A) | Tolerance, Use, Limitations |
|---|---|---|
| | Bluegrass (seed crop) | (continued) |
| | 0.23-0.46<br>(0.918 lb/gal SC/L) | Postemergence. Broadcast. To control red sorrel, apply between November 15 and April 1, or prior to boot stage. To control nightflowering catchfly and white cockle, apply in the spring when seed crop is 2 to 4 inches in height. For newly seeded areas, apply in the spring after seed crop has 3 to 5 leaves. |
| | 1.84-4.00<br>(0.918 lb/gal SC/L)<br>(4 lb/gal SC/L) | Postharvest. Broadcast. Annual grass weed control. Apply to established grasses in late summer or fall after harvest and burning, within 3 to 14 days after first irrigation and before the weeds have more than 2 leaves. |
| | 1 part product/<br>1 part water<br>(4 lb/gal SC/L) | Spot treatment. Wiper application for control of broadleaf weeds, brush and vines. |
| /28006AA | Corn, Field | 0.5 ppm (fodder, forage and grain)<br>Do not graze or harvest for dairy feed prior to the milk stage.<br>General Information: Early postemergence applications may be made in water or fluid fertilizer. Apply in 7 to 40 gallons of water per acre. Crop injury may result if applications are made during periods of rapid growth or when crop is under stress. Do not make more than 1 preemergence and 1 postemergence application per season. Reduce dosage in proportion to band area actually treated. Dicamba applications can be made sequentially to 1 or more of these chemicals: 2-chloro-N-isopropyl-acetanilide; S-ethyl dipropylthiocarbamate; S-ethyl diisobutylthiocarbamate; paraquat; atrazine; simazine; alachlor; 2-((4-chloro-6-(ethylamino)-s-triazin-2-yl)amino)-2-methylpropionitrile; glyphosate; pendimethalin; or metolachlor. |
| | 0.50<br>(4 lb/gal SC/L) | Preemergence. Broadcast or band. Use in conventional, minimum till or no-till systems. Apply to medium to fine soils containing more than 2.5 percent organic matter. Plant corn at least 1.5 inches deep. May be tank mixed with atrazine; 2-((4-chloro-6-(ethylamino)-s-triazin-2-yl)amino)-2-methylpropionitrile; pendimethalin; or metolachlor. |

| | Site, Dosage and Formulation (lb a.e./A) | Tolerance, Use, Limitations |
|---|---|---|
| | Corn, Field (continued) | |
| | 0.50<br>(4 lb/gal SC/L) | Preemergence. Broadcast or band. Use in conventional, minimum till or no-till systems. Tank mix with alachlor. Apply to fine soils containing more than 3 percent organic matter. Plant corn at least 1.5 inches deep. |
| | 0.25-0.5<br>(4 lb/gal SC/L) | Early postemergence. Broadcast or band. Use in conventional, minimum till or no-till systems. Use the lower dosage on coarse soils with less than 2.5 percent organic matter. Use the higer dosage on medium and fine soils with less than 2.5 percent organic matter and on all soils with more than 2.5 percent organic matter. Apply until corn is 5 inches in height. May be tank mixed with alachlor or 2-((4-chloro-6-(ethylamino)-s-triazin-2-yl)amino)-2-methylpropionitrile. |
| | 0.25<br>(4 lb/gal SC/L) | Postemergence. Broadcast or band. Use in conventional, minimum till or no-till systems. Apply before corn is 36 inches in height, or 15 days before tassel emergence, whichever comes first. Use drop nozzles after corn is 8 inches in height. May be tank mixed with 2,4-dichlorophenoxyacetic acid, amine or low volatile ester formulations. |
| | 0.13-0.25<br>(1.25 lb/gal SC/L) | Postemergence. Broadcast or band. Apply before the crop is 36 inches in height. Use drop nozzles after corn is 8 to 10 inches in height. Reduce dosage in proportion to band area actually treated.<br>Formulated with 2,4-dichlorophenoxyacetic acid, dimethylamine salt. |
| | 1 part product/<br>1 part water<br>(4 lb/gal SC/L) | Spot treatment. Wiper application for control of broadleaf weeds, brush and vines. |
| /22000BA | Forage-Fodder Grasses (seed crop) | N.F. (seed)<br>40 ppm (grass hay)<br>Do not graze meat animals in treated fields within 30 days before slaughter. Do not use seed from treated grass for food or feed. |
| | 0.23-0.92<br>(0.918 lb/gal SC/L) | Postemergence. Broadcast. Apply in the spring. For newly seeded areas, use the lower dosage and apply after seed crop has 3 to 5 leaves. |

## DICAMBA AND RELATED ACIDS, DIMETHYLAMINE SALT

| | Site, Dosage and Formulation (lb a.e./A) | Tolerance, Use, Limitations |
|---|---|---|
| | Forage-Fodder Grasses (seed crop) (continued) | |
| | 0.23-0.46<br>(0.918 lb/gal SC/L) | Postemergence. Broadcast. To control red sorrel, apply between November 15 and April 1, or prior to boot stage. To control nightflowering catchfly and white cockle, apply in the spring when seed crop is 2 to 4 inches in height. For newly seeded areas, apply in the spring after seed crop has 3 to 5 leaves. |
| | 1.84-3.67<br>(0.918 lb/gal SC/L) | Postharvest. Broadcast. Downy brome, rattail fescue, and ripgut brome control. Apply in the fall after harvest and burning, within 3 to 14 days after first irrigation, and before weeds have more than 2 leaves. |
| /22030BA<br>/33034BA | Kentucky Bluegrass (seed crop) | N.F. (seed)<br>40 ppm (grass hay)<br>Do not graze or harvest for dairy feed prior to crop maturity. |
| | 1.84-3.67<br>(0.918 lb/gal SC/L) | Postharvest. Broadcast. Downy brome, rattail fescue and ripgut brome control. Apply in the fall after harvest and burning, within 3 to 14 days after first irrigation, and before weeds have more than 2 leaves. |
| | 0.23<br>(1.25 lb/gal SC/L) | Use limited to ID, OR, and WA. Postemergence. Broadcast. Apply in 20 gallons of water per acre, after winter dormancy and up to the early boot stage. Apply only to stands that have been established for at least 1 year.<br>Formulated with 2-methyl-4-chlorophenoxyacetic acid, dimethylamine salt. |
| /28062AA | Oats | 0.5 ppm (grain and straw)<br>Do not graze or harvest for dairy feed prior to the milk stage.<br>General Information: Injury may result if applications are made when crop is under stress. Apply in 5 to 40 gallons of water or fluid fertilizer per acre by ground, or 3 to 10 gallons by air. |
| | 1 part product/ 1 part water<br>(4 lb/gal SC/L) | Spot treatment. Wiper application for control of broadleaf weeds, brush and vines. |

## DICAMBA AND RELATED ACIDS, DIMETHYLAMINE SALT

| Site, Dosage and Formulation (lb a.e./A) | Tolerance, Use, Limitations |
|---|---|
| **Oats** (continued) | |
| (spring seeded) | |
| 0.125<br>(4 lb/gal SC/L) | Postemergence. Broadcast. Apply up to the 5-leaf stage. |
| 0.063-0.125<br>(4 lb/gal SC/L) | Postemergence. Broadcast. Tank mix with 2-methyl-4-chlorophenoxyacetic acid. Apply up to the 5-leaf stage. |
| (fall seeded) | |
| 0.125<br>(4 lb/gal SC/L) | Postemergence. Broadcast. Apply before the joint stage. |
| 0.063-0.125<br>(4 lb/gal SC/L) | Postemergence. Broadcast. Tank mix with 2-methyl-4-chlorophenoxyacetic acid. Apply before the joint stage. |
| 0.125<br>(14.22% EC) | Postemergence. Broadcast. Apply immediately after winter dormancy and prior to the joint stage.<br>Formulated with 2,4-dichlorophenoxyacetic acid, dimethylamine salt. |

| | Site, Dosage and Formulation (lb a.e./A) | Tolerance, Use, Limitations |
|---|---|---|
| /22013AA<br>/22032AA | Pastures (grasses)<br>Rangeland (grasses) | 40 ppm (grasses and grass hay)<br>Do not graze meat animals in treated fields within 30 days of slaughter. Do not use seed from treated grasses for feed or food purposes. The period between treatment and the grazing of lactating dairy animals is dependent upon the amount of dicamba acid that is applied per acre. These guidelines should be followed: Amounts up to 0.5 pound - 7 days; 1 pound - 21 days; 2 pounds - 40 days; and 8 pounds - 60 days. The period between treatment and the harvesting of hay for lactating dairy animals is also dependent upon the amount of dicamba acid that is applied per acre. These guidelines should be followed: Amounts up to 0.5 pound - 37 days; 1 pound - 51 days; 2 pounds - 70 days; and 8 pounds - 90 days.<br>General Information: Do not apply from boot to milk stage or after heading begins. May be applied with a surfactant. |
| | 0.25-6.00<br>(4 lb/gal SC/L) | Broadcast. Apply in 10 to 50 gallons of water, fluid fertilizer or oil-water emulsion per acre by ground, or 3 to 10 gallons by air. Use the lower dosage on newly seeded areas, and for control of annuals and first year growth of biennial weeds. Use the higher dosage for woody plant control. Dosages in excess of 2 pounds per acre may cause temporary injury to sensitive grass species. |
| | 0.125-4.00<br>(4 lb/gal SC/L) | Broadcast. Tank mix with 2,4-dichlorophenoxyacetic acid. Apply in 10 to 50 gallons of water, fluid fertilizer or oil-water emulsion per acre by ground, or 3 to 10 gallons by air. Use the higher dosage for woody plant control. Dosages in excess of 2 pounds per acre may cause temporary injury to sensitive grass species. |
| | 0.125-0.5<br>(1 lb/gal SC/L) | Broadcast. Apply in 20 gallons of water per acre. May be applied with a surfactant. Use the higher dosage for top growth control of perennial weeds. Formulated with 2,4-dichlorophenoxyacetic acid, dimethylamine salt. |

## DICAMBA AND RELATED ACIDS, DIMETHYLAMINE SALT

| Site, Dosage and Formulation (lb a.e./A) | Tolerance, Use, Limitations |
|---|---|
| **Pastures (grasses)** cluster (continued) | |
| 0.1-0.4 lb/100 gal<br>(1 lb/gal SC/L) | Spot treatment. May be applied with a surfactant. Use the higher dosage for top growth control of perennial weeds.<br>Formulated with 2,4-dichlorophenoxyacetic acid, dimethylamine salt. |
| 0.25-1.00<br>(14.22% EC) | Broadcast. Apply in 10 to 100 gallons of water per acre. Do not use on newly seeded areas. Formulated with 2,4-dichlorophenoxyacetic acid, dimethylamine salt. |
| 1 part product/ 1 part water<br>(4 lb/gal SC/L) | Spot treatment. Wiper application for control of broadleaf weeds, brush and vines. |
| 1 ml solution/ injection<br>(4 lb/gal SC/ L) | Tree injection. Prepare the solution with 1 part product and 3 to 5 parts water. Inject into cuts that are 1 to 2 inches apart. Cuts must penetrate the bark and cambium. |
| 1 part product/ 3-5 parts water<br>(4 lb/gal SC/L) | Frill and stump treatments. |
| | Also refer to Rangeland (grasses) for additional information pertinent only to that site. |

| | Site, Dosage and Formulation (lb a.e./A) | Tolerance, Use, Limitations |
|---|---|---|
| /22035BA<br>/33043BA | Perennial Ryegrass (seed crop) | N.F. (seed)<br>40 ppm (grass hay)<br>Do not graze meat animals in treated fields within 30 days of slaughter. Do not use seed from treated grasses for feed or food purposes. The period between treatment and the grazing of lactating dairy animals is dependent upon the amount of dicamba acid that is applied per acre. These guidelines should be followed: Amounts up to 0.5 pound - 7 days; 1 pound - 21 days; 2 pounds - 40 days; and 8 pounds - 60 days. The period between treatment and the harvesting of hay for lactating dairy animals is also dependent upon the amount of dicamba acid that is applied per acre. These guidelines should be followed: Amounts up to 0.5 pound - 37 days; 1 pound - 51 days; 2 pounds - 70 days; and 8 pounds - 90 days.<br>General Information: Do not apply after jointing begins. |
| | 0.25-1.00<br>(4 lb/gal SC/L) | Postemergence. Broadcast. Apply in 5 to 40 gallons of water per acre. For seedling grasses, use the lower dosage and apply after the crop is at the 3- to 5-leaf stage. |
| | 0.23<br>(1.25 lb/gal SC/L) | Use limited to ID, OR, and WA. Postemergence. Broadcast. Apply in 20 gallons of water per acre, after winter dormancy and up to the early boot stage. Apply only to stands that have been established for at least 1 year.<br>Formulated with 2-methyl-4-chlorophenoxyacetic acid, dimethylamine salt. |
| | 0.25-1.00<br>(4 lb/gal SC/L) | Postharvest. Broadcast. Annual grass weed control. Apply to established grasses in late summer or fall after harvest and burning within 3 to 14 days after first irrigation and before the weeds have more than 2 leaves. |
| | 1 part product/<br>1 part water<br>(4 lb/gal SC/L) | Spot treatment. Wiper application for control of broadleaf weeds, brush and vines. |

| | Site, Dosage and Formulation (lb a.e./A) | Tolerance, Use, Limitations |
|---|---|---|
| /22032AA | Rangeland (grasses) | |
| | 0.25-2.00<br>(4 lb/gal SC/L) | Broadcast. Woody brush and vine control. Tank mix with 2,4,5-trichlorophenoxyacetic acid, amine or low volatile ester. Apply in 10 to 50 gallons of water or oil-water emulsion per acre by ground, or in 3 to 10 gallons by air. The lower dosage will provide top growth control.<br>Also refer to Pastures (grasses) cluster. |
| /24006AA | Sorghum (grain crop) | 3 ppm (forage, fodder and grain)<br>Do not graze or use treated sorghum for forage or fodder prior to grain maturity.<br>General Information: Crop injury may result if applications are made during periods of rapid growth or when crop is under stress. Do not use on sorghum grown for seed, or make more than 1 application. Apply in 10 to 40 gallons of water per acre by ground, or 3 to 10 gallons by air. Reduce dosage in proportion to band area actually treated. |
| | 0.25<br>(4 lb/gal SC/L) | Postemergence. Broadcast or band. Apply up to 25 days after emergence, but before the crop is 15 inches in height. Use drop nozzles after sorghum is 8 inches in height. |
| | 0.25<br>(4 lb/gal SC/L) | Use limited to OK and TX. Preharvest. Broadcast or band. Apply from the soft dough stage until 30 days before harvest. May be applied with a surfactant. |
| | 1 part product/<br>1 part water<br>(4 lb/gal SC/L) | Spot treatment. Wiper application for control of broadleaf weeds, brush and vines. |
| /28065AA | Wheat | 0.5 ppm (grain and straw)<br>Do not graze or harvest for dairy feed prior to the milk stage.<br>General Information: Injury may result if applications are made when crop is under stress. Apply in 5 to 40 gallons of water or fluid fertilizer per acre by ground, or 3 to 10 gallons by air. |
| | 1 part product/<br>1 part water<br>(4 lb/gal SC/L) | Spot treatment. Wiper application for control of broadleaf weeds, brush and vines. |

| | Site, Dosage and Formulation (lb a.e./A) | Tolerance, Use, Limitations |
|---|---|---|
| | **Wheat** (continued) | |
| | (spring seeded) | |
| | 0.125<br>(1.25 lb/gal SC/L)<br>(4 lb/gal SC/L) | Postemergence. Broadcast. Apply when crop is in the 2- to 5-leaf stage.<br>May be formulated with 2-methyl-4-chlorophenoxyacetic acid, dimethylamine salt. |
| | 0.063-0.125<br>(4 lb/gal SC/L) | Postemergence. Broadcast. Tank mix with 2,4-dichlorophenoxyacetic acid; 2-methyl-4-chlorophenoxyacetic acid; or bromoxynil. Apply up to 5-leaf stage. |
| | (fall seeded) | |
| | 0.063-0.125<br>(4 lb/gal SC/L) | Postemergence. Broadcast. Apply before the jointing stage. Tank mix with 2,4-dichlorophenoxyacetic acid; bromoxynil; or 2-methyl-4-chlorophenoxyacetic acid and bromoxynil. |
| | 0.125<br>(1.25 lb/gal SC/L)<br>(4 lb/gal SC/L)<br>(14.22% EC) | Postemergence. Broadcast. Apply immediately after winter dormancy and prior to the joint stage.<br>May be formulated with 2,4-dichlorophenoxyacetic acid, dimethylamine salt. |
| | 0.125-0.188<br>(1.25 lb/gal SC/L) | Postemergence. Broadcast. Apply immediately after winter dormancy and prior to the joint stage.<br>Formulated with 2-methyl-4-chlorophenoxyacetic acid, dimethylamine salt. |
| /28065AA | **Wheat (cropland rotated to wheat)** | 0.5 ppm (grain and straw)<br>**General Information**: Do not treat subirrigated areas or where soil remains saturated with water throughout the year. Make only 1 application per year. Some injury to wheat may be expected. |
| | 1.00-2.00<br>(4 lb/gal SC/L) | Use limited to CO, IA, KS, MN, MO, ND, NE, SD, and WY. Preplant. Spot treatment. |
| | 4.00-6.00<br>(4 lb/gal SC/L) | Use limited to ID, MT, NV, OR, UT, and WA. Preplant. Spot treatment. Apply up to 1 month before planting. |
| | 1 part product/<br>1 part water<br>(4 lb/gal SC/L) | Spot treatment. Wiper application for control of broadleaf weeds, brush and vines. |

| | Site, Dosage and Formulation (lb a.e./A) | Tolerance, Use, Limitations |
|---|---|---|
| | **AGRICULTURAL PREMISES** | |
| /660000A | Farm Buildings (around) | |
| | 0.125-0.5<br>(1 lb/gal SC/L)<br>0.1-0.4 lb/100 gal<br>(1 lb/gal SC/L) | Broadcast or spot treatment. Use the higher dosage for top growth control of perennial weeds. Apply in 20 gallons of water per acre. May be applied with a surfactant.<br>Formulated with 2,4-dichlorophenoxyacetic acid, dimethylamine salt. |
| | 0.16-0.63<br>(0.34 lb/gal SC/L) | Broadcast. Brush control. Apply anytime after weed foliage is fully developed and before dormancy. Thoroughly spray weed foliage. Apply in 15 to 25 gallons of water per acre with low volume equipment, or 100 to 300 gallons with high volume equipment.<br>Formulated with 2,4-dichlorophenoxyacetic acid, dimethylamine salt and 2-(2-methyl-4-chlorophenoxy)propionic acid, dimethylamine salt. |
| /660020A | Fallow Land (cropland rotated to fallow or stubble) | General Information: Barley, corn, oats, grain sorghum, and perennial grasses may be planted in treated areas 1 year after application. Broadleaf crops such as alfalfa, beans, peas, potatoes, or sugarbeets may be planted 2 years after application. Seed crops other than perennial grasses may be planted 3 years after application. Do not treat subirrigated areas or where soil remains saturated with water throughout the year. Make only 1 application per year. Some injury to rotated barley may be expected. |
| | 1.00-2.00<br>(4 lb/gal SC/L) | Use limited to CO, IA, KS, MN, MO, ND, NE, SD, and WY. Spot treatment. |
| | 4.00-6.00<br>(4 lb/gal SC/L) | Use limited to ID, MT, NV, OR, UT, and WA. Spot treatment. |
| | 1 part product/ 1 part water<br>(4 lb/gal SC/L) | Spot treatment. Wiper application for control of broadleaf weeds, brush and vines. |

| | Site, Dosage and Formulation (lb a.e./A) | Tolerance, Use, Limitations |
|---|---|---|
| /660000A | **Noncrop Agricultural Areas** | General Information: Noncrop agricultural areas include fencerows and similar noncrop areas. |
| | 0.25-6.00<br>(4 lb/gal SC/L) | Broadcast. Apply in 10 to 50 gallons of water or oil-water emulsion per acre by ground, or 3 to 10 gallons by air. May be applied with a surfactant. Use the lower dosage for control of annuals and first year growth of biennial weeds. Use the higher dosage for woody plant control. |
| | 3.67-7.34<br>(0.918 lb/gal SC/L) | Broadcast or spot treatment. Apply to weed foliage and/or soil. |
| | 4.00-8.00 lb/ 100 gal<br>(4 lb/gal EC) | |
| | 0.46-0.92<br>(0.918 lb/gal SC/L) | Broadcast or spot treatment. Top growth control. Apply in spring or early summer. |
| | 0.50-1.00 lb/ 100 gal<br>(4 lb/gal EC) | |
| | 4.00-8.00<br>(4 lb/gal SC/L) | Soil application. Bracken control. Apply before frond emergence. Dilute in sufficient water to prepare 100 gallons of spray. |
| | 2.00-4.00 fl.oz diluted solution/ in. diameter of plant<br>(0.918 lb/gal SC/L) | Soil application. Eastern persimmon control. Dilute 4 to 8 gallons of product in 100 gallons of water. Apply to ground under the trees as a basal treatment. |
| | 2.00-4.00 fl.oz diluted solution/ in. diameter of plant<br>(4 lb/gal EC) | Soil application. Eastern persimmon control. Dilute 1 to 2 gallons of product in 100 gallons of water. Apply to ground under the trees as a basal treatment. |
| | 4.00-8.00 lb/ 100 gal<br>(4 lb/gal EC) | Eastern persimmon control. Apply to foliage and stems. |

| Site, Dosage and Formulation (lb a.e./A) | Tolerance, Use, Limitations |
|---|---|
| **Noncrop Agricultural Areas** (continued) | |
| 0.50-3.75<br>(4 lb/gal SC/L) | Broadcast. Tank mix with 2,4-dichlorophenoxyacetic acid or 2,4,5-trichlorophenoxyacetic acid. Apply in 30 to 35 gallons of water per acre with low volume equipment, 100 to 300 gallons with high volume equipment, or 15 to 30 gallons by air. Use the higher dosage for woody plant control. Apply anytime after weed foliage is fully developed and before dormancy. |
| 0.125-4.00<br>(4 lb/gal SC/L) | Broadcast. Tank mix with 2,4-dichlorophenoxyacetic acid. Apply in 10 to 50 gallons of water or oil-water emulsion per acre by ground, or 3 to 10 gallons by air. May be applied with a surfactant. Use the higher dosage for woody plant control. |
| 0.25-2.00<br>(4 lb/gal SC/L) | Broadcast. Woody brush and vine control. Tank mix with 2,4,5-trichlorophenoxyacetic acid, amine or low volatile ester. Apply in 10 to 50 gallons of water or oil-water emulsion per acre by ground, or in 3 to 10 gallons by air. The lower dosage will provide top growth control. |
| 0.125-3.33<br>(14.22% EC)<br>(0.34-1.25 lb/gal SC/L)<br>0.1-0.4 lb/100 gal<br>(1 lb/gal SC/L) | Broadcast or spot treatment. Apply in 15 to 35 gallons of water per acre with low volume equipment, 100 to 300 gallons by air. May be applied with a surfactant. Use the higher dosages for woody plant control and apply after weed foliage is fully developed until 3 weeks before frost. Formulated with 2,4-dichlorophenoxyacetic acid, dimethylamine salt; 2-methyl-4-chlorophenoxyacetic acid, dimethylamine salt; 2,4,5-trichlorophenoxyacetic acid, dimethylamine salt; or 2,4-dichlorophenoxyacetic acid, dimethylamine salt and 2-(2-methyl-4-chlorophenoxy)propionic acid, dimethylamine salt. |
| 1 part product/ 1 part water<br>(4 lb/gal SC/L) | Spot treatment. Wiper application for control of broadleaf weeds, brush and vines. |
| 0.50-1.00 ml solution/injection<br>(4 lb/gal SC/L)<br>or | Tree injection. Prepare the solution with 1 part product and 1 to 5 parts water. Inject into cuts that are 1 to 3 inches apart around the circumference of the tree. Cuts must penetrate the bark and cambium. |

**Noncrop Agricultural Areas** (continued)

| Site, Dosage and Formulation (lb a.e./A) | Tolerance, Use, Limitations |
|---|---|
| 0.50-1.00 ml product/injection<br>(4 lb/gal RTU) | |
| --<br>(4 lb/gal SC/L)<br>(0.918 lb/gal RTU)<br>(4 lb/gal RTU) | Frill and stump treatments. Dilute 1 part soluble concentrate with 1 to 5 parts water. |

## ORNAMENTALS

**General Warnings and Limitations:** Liquid applications may be made with hose end sprayers, hand tank sprayers, or a sprinkling can. Apply in sufficient water for good coverage, usually 10 to 50 gallons per 5,000 square feet. Fall germinating weeds should be treated in the fall or early winter for better control. Do not broadcast on newly seeded areas until after the second mowing.

/33015AA **Bahiagrass**

| | |
|---|---|
| 0.058 lb/5,000 sq.ft<br>(0.437% G) | Broadcast. Apply immediately after the first mowing and water lightly after application. Additional applications may be made as weeds appear. |
| 0.005-0.029 lb/5,000 sq.ft<br>(0.016-0.071% G)<br>(0.018-0.094 lb/gal SC/L) | Broadcast. Apply the granular formulations when the lawn is moist from rain, dew, or a sprinkling. Repeat if necessary.<br>Formulated with 2,4-dichlorophenoxyacetic acid, dimethylamine salt; or 2,4-dichlorophenoxyacetic acid, dimethylamine salt and 2-(2-methyl-4-chlorophenoxy)propionic acid, dimethylamine salt. |

/33016AA **Bentgrass**

| | |
|---|---|
| 0.058 lb/5,000 sq.ft<br>(0.437% G) | Broadcast. Apply immediately after the first mowing and water lightly after application. Additional applications may be made as weeds appear. |
| 0.005-0.018 lb/5,000 sq.ft<br>(0.016-0.071% G)<br>(0.018-0.19 lb/gal SC/L) | Broadcast. Apply the granular formulations when the lawn is moist from rain, dew, or a sprinkling. Formulated with 2,4-dichlorophenoxyacetic acid, dimethylamine salt and 2-(2-methyl-4-chlorophenoxy)propionic acid, dimethylamine salt. |

| | Site, Dosage and Formulation (lb a.e./A) | Tolerance, Use, Limitations |
|---|---|---|
| | **Bentgrass** (continued) | |
| | (putting and bowling greens) | |
| | 0.026-0.057 lb/ 5,000 sq.ft<br>(0.918 lb/gal SC/L)<br>(4 lb/gal SC/L) | Broadcast. Make only 1 application per year. |
| | 0.006-0.007 lb/ 5,000 sq.ft<br>(0.19-0.32 lb/gal SC/L) | Broadcast. Apply in May, or mid-August through September.<br>Formulated with 2,4-dichlorophenoxyacetic acid, dimethylamine salt and 2-(2-methyl-4-chlorophenoxy)propionic acid, dimethylamine salt. |
| | **Bentgrass (seed crop)** | See AGRICULTURAL CROPS, Bentgrass (seed crop). |
| /33017AA | **Bermudagrass** | |
| | 0.058 lb/5,000 sq.ft<br>(0.437% G) | Broadcast. Apply immediately after the first mowing and water lightly after application. Additional applications may be made as weeds appear. |
| | 0.005-0.03 lb/ 5,000 sq.ft<br>(0.016-0.119% G)<br>(0.045-0.097 lb/gal EC)<br>(0.015-0.25 lb/gal SC/L) | Broadcast. Apply the granular formulations when the lawn is moist from rain, dew, or a sprinkling. The soluble concentrates may be applied with a surfactant.<br>Formulated with 2,4-dichlorophenoxyacetic acid, dimethylamine salt; or 2,4-dichlorophenoxyacetic acid, dimethylamine salt and 2-(2-methyl-4-chlorophenoxy)propionic acid, dimethylamine salt. |
| | 0.058 lb/5,000 sq.ft<br>(0.236% G)<br>(0.1062% G) | |
| /33019AA | **Bluegrass** | |
| | 0.007-0.03 lb/ 5,000 sq.ft<br>(0.019-0.108% G)<br>(0.045-0.097 lb/gal EC)<br>(0.015-0.25 lb/gal SC/L) | Broadcast. Apply the granular formulations when the lawn is moist from rain, dew, or a sprinkling. The soluble concentrates may be applied with a surfactant.<br>Formulated with 2,4-dichlorophenoxyacetic acid, dimethylamine salt; or 2,4-dichlorophenoxyacetic acid, dimethylamine salt and 2-(2-methyl-4-chlorophenoxy)propionic acid, dimethylamine salt. |

## DICAMBA AND RELATED ACIDS, DIMETHYLAMINE SALT

| | Site, Dosage and Formulation (lb a.e./A) | Tolerance, Use, Limitations |
|---|---|---|
| | Bluegrass (seed crop) | See AGRICULTURAL CROPS, Bluegrass (seed crop). |
| /33020AA | Buffalograss | |
| | 0.009-0.011 lb/ 5,000 sq.ft<br>(0.018-0.094 lb/gal SC/L) | Broadcast.<br>Formulated with 2,4-dichlorophenoxyacetic acid, dimethylamine salt and 2-(2-methyl-4-chlorophenoxy)propionic acid, dimethylamine salt. |
| /33022AA | Carpetgrass | |
| | 0.058 lb/5,000 sq.ft<br>(0.437% G) | Broadcast. Apply immediately after the first mowing and water lightly after application. Additional applications may be made as weeds appear. |
| /33023AA | Centipedegrass | |
| | 0.005-0.023 lb/ 5,000 sq.ft<br>(0.016-0.071% G)<br>(0.018-0.094 lb/gal SC/L) | Broadcast. Apply the granular formulations when the lawn is moist from rain, dew, or a sprinkling.<br>Formulated with 2,4-dichlorophenoxyacetic acid, dimethylamine salt and 2-(2-methyl-4-chlorophenoxy)propionic acid, dimethylamine salt. |
| /33111AA<br>/33046AA | Creeping Red Fescue<br>Red Top | |
| | 0.058 lb/ 5,000 sq.ft<br>(0.236% G)<br>(0.1062% G) | Broadcast. Apply when the lawn is moist from rain, dew, or a sprinkling.<br>Formulated with 2,4-dichlorophenoxyacetic acid, dimethylamine salt. |
| /3303100 | Fescue | |
| | 0.058 lb/5,000 sq.ft<br>(0.437% G) | Broadcast. Apply immediately after the first mowing and water lightly after application. Additional applications may be made as weeds appear. |
| | 0.005-0.029 lb/ 5,000 sq.ft<br>(0.028-0.119% G)<br>(0.06 lb/gal EC)<br>(0.018-0.097 lb/gal SC/L) | Broadcast. Apply the granular formulations when the lawn is moist from rain, dew, or a sprinkling.<br>Formulated with 2,4-dichlorophenoxyacetic acid, dimethylamine salt; or 2,4-dichlorophenoxyacetic acid, dimethylamine salt and 2-(2-methyl-4-chlorophenoxy)propionic acid, dimethylamine salt. |

## DICAMBA AND RELATED ACIDS, DIMETHYLAMINE SALT

| | Site, Dosage and Formulation (lb a.e./A) | Tolerance, Use, Limitations |
|---|---|---|
| /33031BA | **Fescue (seed crop)** | |
| | 0.23-1.00<br>(0.918 lb/gal SC/L)<br>(4 lb/gal SC/L) | Postemergence. Broadcast. Apply in 5 to 40 gallons of water per acre. For seedling grasses, use the lower dosage and apply after the crop is at the 3- to 5-leaf stage. |
| | 0.23-0.46<br>(0.918 lb/gal SC/L) | Postemergence. Broadcast. To control red sorrel, apply between November 15 and April 1, or prior to boot stage. To control nightflowering catchfly and white cockle, apply in the spring when seed crop is 2 to 4 inches in height. For newly seeded areas, apply in the spring after seed crop has 3 to 5 leaves. |
| | 0.23<br>(1.25 lb/gal SC/L) | Use limited to ID, OR, and WA. Postemergence. Broadcast. Apply in 20 gallons of water per acre, after winter dormancy and up to the early boot stage. Apply only to stands that have been established for at least 1 year.<br>Formulated with 2-methyl-4-chlorophenoxyacetic acid, dimethylamine salt. |
| | 1.84-4.00<br>(0.918 lb/gal SC/L)<br>(4 lb/gal SC/L) | Postharvest. Broadcast. Annual grass weed control. Apply to established grasses in late summer or fall after harvest and burning within 3 to 14 days after first irrigation and before the seeds have more than 2 leaves. |
| | 1 part product/ 1 part water<br>(4 lb/gal SC/L) | Spot treatment. Wiper application for control of broadleaf weeds, brush and vines. |
| /33034AA | **Kentucky Bluegrass** | |
| | 0.058 lb/5,000 sq.ft<br>(0.437% G) | Broadcast. Apply immediately after the first mowing and water lightly after application. Additional applications may be made as weeds appear. |
| | 0.017 lb/ 5,000 sq.ft<br>(0.119% G)<br>0.02 lb/5,000 sq.ft<br>(0.049% G)<br>or | Broadcast. Apply when the lawn is moist from rain, dew, or a sprinkling.<br>Formulated with 2,4-dichlorophenoxyacetic acid, dimethylamine salt; or 2,4-dichlorophenoxyacetic acid, dimethylamine salt and 2-(2-methyl-4-chlorophenoxy)propionic acid, dimethylamine salt. |

| | Site, Dosage and Formulation (lb a.e./A) | Tolerance, Use, Limitations |
|---|---|---|
| | Kentucky Bluegrass (continued) | |
| | 0.058 lb/ 5,000 sq.ft<br>(0.236% G)<br>(0.1062% G) | |
| | Kentucky Bluegrass (seed crop) | See AGRICULTURAL CROPS, Kentucky Bluegrass (seed crop). |
| /33008AA | Ornamental Turf (cemeteries; golf course aprons, fairways, roughs and tees; lawns and parks) | |
| | 0.058 lb/ 5,000 sq.ft<br>(0.437% G) | Broadcast. Apply immediately after the first mowing and water lightly after application. Additional applications may be made as weeds appear. |
| | 0.20 lb/5,000 sq.ft<br>(2.83% G) | Broadcast or spot treatment. Shaker can application. May be applied in spring before weeds germinate or when weeds are actively growing. Water chemical into the soil. Make only 1 application per year. |
| | 2.00-4.00 fl.oz product/5,000 sq.ft<br>(56.9% SC/L) | Broadcast. Apply in the spring or early summer to actively growing weeds. |
| | 0.057-0.114 lb/ 5,000 sq.ft<br>(0.918 lb/gal SC/L)<br>(4 lb/gal SC/L) | Broadcast. Make only 1 application per year. |

| Site, Dosage and Formulation (lb a.e./A) | Tolerance, Use, Limitations |
|---|---|
| **Ornamental Turf (cemeteries; golf course aprons, fairways, roughs and tees, lawns and parks) (continued)** | |
| 0.007-0.059 lb/ 5,000 sq.ft<br>(0.0015-0.812% G)<br>(0.01-1.5 lb/gal EC)<br>(0.0375-1.5 lb/gal SC/L)<br>1.56 pt product/ 5,000 sq.ft<br>(1.66% SC/L)<br>1.04 pt product/ 5,000 sq.ft<br>(2.4% SC/L) | Broadcast. Apply the granular formulations when the lawn is moist from rain, dew, or a sprinkling. Do not mow the lawn for 2 to 3 days before application. Deep-rooted perennial weeds and late season weeds will require the higher dosages and repeated applications. The soluble concentrates may be applied with a surfactant.<br>Formulated with 2,4-dichlorophenoxyacetic acid, alkanolamine salt (of the ethanol and isopropanol series); 2,4-dichlorophenoxyacetic acid, dimethylamine salt; or 2,4-dichlorophenoxyacetic acid and 2-(2-methyl-4-chlorophenoxy)propionic acid; or 2,4-dichlorophenoxyacetic acid, dimethylamine salt and 2-(2-methyl-4-chlorophenoxy)propionic acid, dimethylamine salt. |
| 0.014 lb/ 5,000 sq.ft<br>(0.0465 lb/gal SC/L) | Broadcast. Wild onion control. Apply in early spring and repeat when new spikes appear. Use spot treatments on newly seeded lawns.<br>Formulated with 2,4-dichlorophenoxyacetic acid, dimethylamine salt and 2-(2-methyl-4-chlorophenoxy)propionic acid, dimethylamine salt. |
| 0.046 lb/ 5,000 sq.ft<br>(0.32% G) | Broadcast. Apply in spring or early summer for preemergence control of grasses and broadleaf weeds and for postemergence control of broadleaf weeds. Treatment will thin fineleaf fescue.<br>Formulated with 2,4-dichlorophenoxyacetic acid, dimethylamine salt and N-butyl-N-ethyl-a-a-a-trifluoro-2,6-dinitro-p-toluidine. |
| --<br>(0.26% EC)<br>(0.064-0.25% RTU)<br>(0.029-0.74% PrL) | Spot treatment. Thoroughly spray weed foliage. Repeat in 1 to 3 weeks if necessary.<br>Formulated with 2,4-dichlorophenoxyacetic acid, alkanolamine salt (of the ethanol and iospropanol series); 2,4-dichlorophenoxyacetic acid, dimethylamine salt; or 2,4-dichlorophenoxyacetic acid, dimethylamine salt and 2-(2-methyl-4-chlorophenoxy)propionic acid, dimethylamine salt. |

| Site, Dosage and Formulation (lb a.e./A) | Tolerance, Use, Limitations |
|---|---|
| Ornamental Turf (cemeteries; golf course aprons, fairways, roughs and tees, lawns and parks) (continued) | |
| (newly seeded turf areas) | |
| 0.007-0.009 lb/ 5,000 sq.ft<br>(0.075-0.094 lb/gal SC/L) | Broadcast. Delay treatment until after the second mowing. Spot treatment at half dosage may be made anytime.<br>Formulated with 2,4-dichlorophenoxyacetic acid, dimethylamine salt and 2-(2-methyl-4-chlorophenoxy)propionic acid, dimethylamine salt. |
| Perennial Ryegrass (seed crop) | See AGRICULTURAL CROPS, Perennial Ryegrass (seed crop). |
| Red Top | See Creeping Red Fescue. |
| /33049AA Ryegrass | |
| 0.058 lb/5,000 sq.ft<br>(0.437% G) | Broadcast. Apply immediately after the first mowing and water lightly after application. Additional applications may be made as weeds appear. |
| 0.009-0.023 lb/ 5,000 sq.ft<br>(0.019-0.119% G)<br>(0.006 lb/gal EC)<br>(0.018-0.094 lb/gal SC/L) | Broadcast. Apply the granular formulations when the lawn is moist from rain, dew, or a sprinkling. Repeat if necessary.<br>Formulated with 2,4-dichlorophenoxyacetic acid, dimethylamine salt; or 2,4-dichlorophenoxyacetic acid, dimethylamine salt and 2-(2-methyl-4-chlorophenoxy)propionic acid, dimethylamine salt. |
| 0.058 lb/ 5,000 sq.ft<br>(0.0236% G)<br>(0.1062% G) | |

| | Site, Dosage and Formulation (lb a.e./A) | Tolerance, Use, Limitations |
|---|---|---|
| /33050AA | St. Augustinegrass | |
| | 0.058 lb/5,000 sq.ft<br>(0.437% G) | Broadcast. Apply immediately after the first mowing and water lightly after application. Additional applications may be made as weeds appear. |
| | 0.005-0.019 lb/ 5,000 sq.ft<br>(0.015-0.236% G)<br>(0.018-0.284 lb/gal SC/L) | Broadcast. Apply the granular formulations when the lawn is moist from rain, dew, or a sprinkling. Formulated with 2,4-dichlorophenoxyacetic acid, dimethylamine salt; or 2,4-dichlorophenoxyacetic acid, dimethylamine salt and 2-(2-methyl-4-chlorophenoxy)propionic acid, dimethylamine salt. |
| | 6.25 fl.oz product/ 5,000 sq.ft<br>(1.66% SC/L) | |
| /33056AA | Zoysia Grass | |
| | 0.058 lb/5,000 sq.ft<br>(0.437% G) | Broadcast. Apply immediately after the first mowing and water lightly after application. Additional applications may be made as weeds appear. |
| | 0.007-0.03 lb/ 5,000 sq.ft<br>(0.016-0.236% G)<br>(0.045-0.097 lb/gal EC)<br>(0.015-0.25 lb/gal SC/L) | Broadcast. Apply the granular formulations when the lawn is moist from rain, dew, or a sprinkling. Formulated with 2,4-dichlorophenoxyacetic acid, dimethylamine salt; or 2,4-dichlorophenoxyacetic acid, dimethylamine salt and 2-(2-methyl-4-chlorophenoxy)propionic acid, dimethylamine salt. |
| | 0.058 lb/ 5,000 sq.ft<br>(0.236% G)<br>(0.1062% G) | |
| | RIGHTS-OF-WAY | |
| /670130A | Rights-of-Way | |
| | | General Information: Rights-of-way include pipe lines, roadways, roadsides, highway, railroad and utility rights-of-way. |
| | 0.25-6.00<br>(4 lb/gal SC/L) | Broadcast. Apply in 10 to 50 gallons of water or oil-water emulsion per acre by ground, or 3 to 10 gallons by air. May be applied with a surfactant. Use the lower dosage for control of annuals and first year growth of biennial weeds. Use the higer dosage for woody plant control. |

| Site, Dosage and Formulation (lb a.e./A) | Tolerance, Use, Limitations |
|---|---|
| Rights-of-Way (continued) | |
| 3.67-7.34 (0.918 lb/gal SC/L) | Broadcast or spot treatment. Apply to weed foliage and/or soil. |
| 4.00-8.00 (4 lb/gal SC/L) | |
| 4.00-8.00 lb/100 gal (4 lb/gal EC) | |
| 0.46-0.92 (0.918 lb/gal SC/L) | Broadcast or spot treatment. Top growth control. Apply in spring or early summer. |
| 0.50-1.00 (4 lb/gal SC/L) | |
| 0.50-1.00 lb/100 gal (4 lb/gal EC) | |
| 4.00-8.00 (4 lb/gal SC/L) | Soil application. Bracken control. Apply before frond emergence. Dilute in sufficient water to prepare 100 gallons of spray. |
| 0.50-3.75 (4 lb/gal SC/L) | Broadcast. Tank mix with 2,4-dichlorophenoxyacetic acid. Apply in 30 to 35 gallons of water per acre with low volume equipment, 100 to 300 gallons with high volume equipment, or 15 to 30 gallons by air. Use the higher dosage for woody plant control. Apply anytime after weed foliage is fully developed and before dormancy. |
| 0.125-4.00 (4 lb/gal SC/L) | Broadcast. Tank mix with 2,4-dichlorophenoxyacetic acid. Apply in 10 to 50 gallons of water, fluid fertilizer or oil-water emulsion per acre by ground, or 3 to 10 gallons by air. May be applied with a surfactant. Use the higher dosage for woody plant control. |

## DICAMBA AND RELATED ACIDS, DIMETHYLAMINE SALT

| Site, Dosage and Formulation (lb a.e./A) | Tolerance, Use, Limitations |
|---|---|
| **Rights-of-Way** (continued) | |
| 0.125-3.33<br>(14.22% EC)<br>(0.21-1.25 lb/gal SC/L)<br>0.1-0.4 lb/100 gal<br>(1 lb/gal SC/L) | Broadcast or spot treatment. Apply in 15 to 35 gallons of water per acre with low volume equipment, 100 to 300 gallons with high volume equipment, or 15 to 30 gallons by air. May be applied with a surfactant. Use the higher dosages for woody plant control and apply after weed foliage is fully developed until 3 weeks before frost. Formulated with 2,4-dichlorophenoxyacetic acid, dimethylamine salt; 2-methyl-4-chlorophenoxyacetic acid, dimethylamine salt; or 2,4-dichlorophenoxyacetic acid, dimethylamine salt and 2-(2-methyl-4-chlorophenoxy)propionic acid, dimethylamine salt. |
| 0.25 lb/100 gal<br>(0.25 lb/gal EC)<br>6.25 pint product/100 gal<br>(2.4% SC/L) | Broadcast. Thoroughly spray weed foliage. Repeat in 3 to 4 weeks if necessary.<br>Formulated with 2,4-dichlorophenoxyacetic acid, dimethylamine salt. |
| 12.5-16.67 pint product/100 gal<br>(2.4% SC/L) | Broadcast. Woody plant control. Thoroughly spray weed foliage. Repeat if necessary.<br>Formulated with 2,4-dichlorophenoxyacetic acid, dimethylamine salt. |
| 1 part product/1 part water<br>(4 lb/gal SC/L) | Spot treatment. Wiper application for control of broadleaf weeds, brush and vines. |
| 0.50-1.00 ml solution/injection<br>(4 lb/gal SC/L)<br>0.50-1.00 ml product/injection<br>(4 lb/gal RTU) | Tree injection. Prepare the solution with 1 part product and 1 to 5 parts water. Inject into cuts that are 1 to 3 inches apart around the circumference of the tree. Cuts must penetrate the bark and cambium. |
| --<br>(4 lb/gal SC/L)<br>(0.918 lb/gal RTU)<br>(4 lb/gal RTU) | Frill and stump treatments. Dilute 1 part soluble concentrate with 1 to 5 parts water. |

| | Site, Dosage and Formulation (lb a.e./A) | Tolerance, Use, Limitations |
|---|---|---|
| | **COMMERCIAL AND INDUSTRIAL PREMISES** | |
| /670000A | Noncrop Areas | |
| | | General Information: Noncrop Areas include fencerows, vacant lots, storage areas and areas around buildings. |
| | 0.25-6.00 (4 lb/gal SC/L) | Broadcast. Apply in 10 to 50 gallons of water or oil-water emulsion per acre by ground, or 3 to 10 gallons by air. May be applied with a sufactant. Use the lower dosage for control of annuals and first year growth of biennial weeds. Use the higher dosage for woody plant control. |
| | 3.67-7.34 (0.918 lb/gal SC/L) | Broadcast or spot treatment. Apply to weed foliage and/or soil. |
| | 4.00-8.00 lb/100 gal (4 lb/gal EC) | |
| | 0.46-0.92 (0.918 lb/gal SC/L) | Broadcast or spot treatment. Top growth control. Apply in spring or early summer. |
| | 0.50-1.00 lb/100 gal (4 lb/gal EC) | |
| | 4.00-8.00 (4 lb/gal SC/L) | Soil application. Bracken control. Apply before frond emergence. Dilute in sufficient water to prepare 100 gallons of spray. |
| | 2.00-4.00 fl.oz diluted solution/ in. diameter of plant (0.918 lb/gal SC/L) | Soil application. Eastern persimmon control. Dilute 4 to 8 gallons of product in 100 gallons of water. Apply to ground under the trees as a basal treatment. |
| | 2.00-4.00 fl.oz diluted solution/ in. diameter of plant (4 lb/gal EC) | Soil application. Eastern persimmon control. Dilute 1 to 2 gallons of product in 100 gallons of water. Apply to ground under the trees as a basal treatment. |
| | 4.00-8.00 lb/100 gal (4 lb/gal EC) | Eastern persimmon control. Apply to foliage and stems. |

| Site, Dosage and Formulation (lb a.e./A) | Tolerance, Use, Limitations |
|---|---|
| Noncrop Areas (continued) | |
| 0.50-3.75<br>(4 lb/gal SC/L) | Broadcast. Tank mix with 2,4-dichlorophenoxyacetic acid or 2,4,5-trichlorophenoxyacetic acid. Apply in 30 to 35 gallons of water per acre with low volume equipment, 100 to 300 gallons with high volume equipment, or 15 to 30 gallons by air. Use the higher dosage for woody plant control. Apply anytime after weed foliage is fully developed and before dormancy. |
| 0.125-4.00<br>(4 lb/gal SC/L) | Broadcast. Tank mix with 2,4-dichlorophenoxyacetic acid. Apply in 10 to 50 gallons of water or oil-water emulsion per acre by ground, or 3 to 10 gallons by air. May be applied with a surfactant. Use the higher dosage for woody plant control. |
| 0.25-2.00<br>(4 lb/gal SC/L) | Broadcast. Woody brush and vine control. Tank mix with 2,4,5-trichlorophenoxyacetic acid, amine or low volatile ester. Apply in 10 to 50 gallons of water or oil-water emulsion per acre by ground, or in 3 to 10 gallons by air. The lower dosage will provide top growth control. |
| 0.06-3.33<br>(0.045-0.097 lb/gal EC)<br>(14.22% EC)<br>(0.015-1.25 lb/gal SC/L) | Broadcast or spot treatment. Apply in 15 to 35 gallons of water per acre with low volume equipment, 100 to 300 gallons with high volume equipment, or 15 to 30 gallons by air. May be applied with a surfactant. Use the higher dosages for woody plant control and apply after weed foliage is fully developed until 3 weeks before frost. |
| 0.1-0.4 lb/100 gal<br>(1 lb/gal SC/L) | Formulated with 2,4-dichlorophenoxyacetic acid, dimethylamine salt; 2-methyl-4-chlorophenoxyacetic acid, dimethylamine salt; 2,4,5-trichlorophenoxyacetic acid, dimethylamine salt; or 2,4-dichlorophenoxyacetic acid, dimethylamine salt and 2-(2-methyl-4-chlorophenoxy)propionic acid, dimethylamine salt. |
| 0.11-1.16 lb/100 gal<br>(0.11-0.26 lb/gal EC) | Broadcast. Thoroughly spray weed foliage. Repeat in 3 to 4 weeks if necessary.<br>Formulated with 2,4-dichlorophenoxyacetic acid, dimethylamine salt. |
| 0.27 lb/100 gal<br>(0.17 lb/gal SC/L)<br>or | |

## DICAMBA AND RELATED ACIDS, DIMETHYLAMINE SALT

**Noncrop Areas** (continued)

| Site, Dosage and Formulation (lb a.e./A) | Tolerance, Use, Limitations |
|---|---|
| 6.25-8.33 pint product/100 gal<br>(2.4% SC/L) | |
| 12.5-16.67 pint product/100 gal<br>(2.4% SC/L) | Broadcast. Woody plant control. Thoroughly spray weed foliage. Repeat if necessary.<br>Formulated with 2,4-dichlorophenoxyacetic acid, dimethylamine salt. |
| 1.56 gal product/ 100 gal<br>(1.95% SC/L) | Broadcast. Thoroughly spray weed foliage. Repeat as needed.<br>Formulated with 2,4-dichlorophenoxyacetic acid, triethylamine salt and silvex, triethylamine salt. |
| 1 part product/ 1 part water<br>(4 lb/gal SC/L) | Spot treatment. Wiper application for control of broadleaf weeds, brush and vines. |
| 0.50-1.00 ml solution/injection<br>(4 lb/gal SC/L) | Tree injection. Prepare the solution with 1 part product and 1 to 5 parts water. Inject into cuts that are 1 to 3 inches apart around the circumference of the tree. Cuts must penetrate the bark and cambium. |
| 0.50-1.00 ml product/injection<br>(4 lb/gal RTU) | |
| --<br>(4 lb/gal SC/L)<br>(0.918 lb/gal RTU)<br>(4 lb/gal RTU) | Frill and stump treatments. Dilute 1 part soluble concentrate with 1 to 5 parts water. |
| 3 lb/100 gal oil<br>(0.11 lb/gal EC) | Stump treatment.<br>Formulated with 2,4-dichlorophenoxyacetic acid, dimethylamine salt. |

## DICAMBA AND RELATED ACIDS, DIMETHYLAMINE SALT

| | Site, Dosage and Formulation (lb a.e./A) | Tolerance, Use, Limitations |
|---|---|---|
| | **DOMESTIC DWELLINGS, MEDICAL FACILITIES AND SCHOOLS** | |
| /670000A | Noncrop Areas | |
| | | General Information: Noncrop areas include fencerows, vacant lots, storage areas, playgrounds, driveways, alleys and areas around buildings. |
| | 0.06-0.26<br>(0.045-0.097 lb/gal EC)<br>(0.015-0.25 lb/gal SC/L) | Broadcast. Apply in 200 to 400 gallons of water per acre and thoroughly spray weed foliage. May be applied with a surfactant. Repeat if necessary.<br>Formulated with 2,4-dichlorophenoxyacetic acid; 2,4-dichlorophenoxyacetic acid, dimethylamine salt; or 2,4-dichlorophenoxyacetic acid, dimethylamine salt and 2-(2-methyl-4-chlorophenoxy)propionic acid, dimethylamine salt. |
| | 0.11-0.325 lb/100 gal<br>(0.11-0.26 lb/gal EC) | Broadcast. Thoroughly spray weed foliage. Repeat in 3 to 4 weeks if necessary.<br>Formulated with 2,4-dichlorophenoxyacetic acid, dimethylamine salt. |
| | 1.16 lb/100 gal<br>(0.145 lb/gal EC) | |
| | 0.27 lb/100 gal<br>(0.17 lb/gal SC/L) | |
| | 6.25-8.33 pint product/100 gal<br>(2.4% SC/L) | |
| | 12.5-16.67 pint product/100 gal<br>(2.4% SC/L) | Broadcast. Woody plant control. Thoroughly spray weed foliage. Repeat if necessary.<br>Formulated with 2,4-dichlorophenoxyacetic acid, dimethylamine salt. |
| | 3.00 lb/100 gal oil<br>(0.11 lb/gal EC) | Stump treatment.<br>Formulated with 2,4-dichlorophenoxyacetic acid, dimethylamine salt. |

## DICAMBA AND RELATED ACIDS, DIMETHYLAMINE SALT

| | Site, Dosage and Formulation (lb a.e./A) | Tolerance, Use, Limitations |
|---|---|---|
| | **FOREST, CHAPARRAL, NONAGRICULTURAL AND WASTELANDS** | |
| /30000AA | Forest Lands | |
| | 0.49-1.00<br>(1 lb/gal SC/L) | Broadcast or spot treatment. Annual and perennial weed control. Apply in 100 gallons of water per acre.<br>Formulated with 2,4-dichlorophenoxyacetic acid, dimethylamine salt. |
| | 2.00-3.33<br>(1 lb/gal SC/L) | Broadcast. Woody plant control. Apply after foliage is fully developed, until 3 weeks before frost. Apply in 30 to 35 gallons of water per acre with low volume equipment, 200 to 300 gallons with high volume equipment, or 15 to 30 gallons by air.<br>Formulated with 2,4-dichlorophenoxyacetic acid, dimethylamine salt. |
| /670000A | Noncrop Areas | General Information: Noncrop areas include fencerows, wastelands and other noncrop areas. |
| | 0.25-6.00<br>(4 lb/gal SC/L) | Broadcast. Apply in 10 to 50 gallons of water or oil-water emulsion per acre by ground, or 3 to 10 gallons by air. May be applied with a surfactant. Use the lower dosage for control of annuals and first year growth of biennial weeds. Use the higher dosage for woody plant control. |
| | 3.67-7.34<br>(0.918 lb/gal SC/L) | Broadcast or spot treatment. Apply to weed foliage and/or soil. |
| | 4.00-8.00 lb/100 gal<br>(4 lb/gal EC) | |
| | 0.46-0.92<br>(0.918 lb/gal SC/L) | Broadcast or spot treatment. Top growth control. Apply in spring or early summer. |
| | 0.50-1.00 lb/100 gal<br>(4 lb/gal EC) | |
| | 4.00-8.00<br>(4 lb/gal SC/L) | Soil application. Bracken control. Apply before frond emergence. Dilute in sufficient water to prepare 100 gallons of spray. |

| Site, Dosage and Formulation (lb a.e./A) | Tolerance, Use, Limitations |
|---|---|
| **Noncrop Areas** (continued) | |
| 2.00-4.00 fl.oz diluted solution/ in. diameter of plant<br>(0.918 lb/gal SC/L) | Soil application. Eastern persimmon control. Dilute 4 to 8 gallons of product in 100 gallons of water. Apply to ground under the trees as a basal treatment. |
| 2.00-4.00 fl.oz diluted solution/ in. diameter of plant<br>(4 lb/gal EC) | Soil application. Eastern persimmon control. Dilute 1 to 2 gallons of product in 100 gallons of water. Apply to ground under the trees as a basal treatment. |
| 4.00-8.00 lb/100 gal<br>(4 lb/gal EC) | Broadcast. Eastern persimmon control. Apply to foliage and stems. |
| 0.50-3.75<br>(4 lb/gal SC/L) | Broadcast. Tank mix with 2,4-dichlorophenoxyacetic acid or 2,4,5-trichlorophenoxyacetic acid. Apply in 30 to 35 gallons of water per acre with low volume equipment, 100 to 300 gallons with high volume equipment, or 15 to 30 gallons by air. Use the higher dosage for woody plant control. Apply anytime after weed foliage is fully developed and before dormancy. |
| 0.125-4.00<br>(4 lb/gal SC/L) | Broadcast. Tank mix with 2,4-dichlorophenoxyacetic acid. Apply in 10 to 50 gallons of water or oil-water emulsion per acre by ground, or 3 to 10 gallons by air. May be applied with a surfactant. Use the higher dosage for woody plant control. |
| 0.25-2.00<br>(4 lb/gal SC/L) | Broadcast. Woody brush and vine control. Tank mix with 2,4,5-trichlorophenoxyacetic acid, amine or low volatile ester. Apply in 10 to 50 gallons of water or oil-water emulsion per acre by ground, or in 3 to 10 gallons by air. The lower dosage will provide top growth control. |

| Site, Dosage and Formulation (lb a.e./A) | Tolerance, Use, Limitations |
|---|---|
| Noncrop Areas (continued) | |
| 0.16-3.33<br>(14.22% EC)<br>(0.34-1 lb/gal SC/L) | Broadcast or spot treatment. Apply in 15 to 35 gallons of water per acre with low volume equipment, 100 to 300 gallons with high volume equipment, or 15 to 30 gallons by air. May be applied with a surfactant. Use the higher dosages for woody plant control and apply after weed foliage is fully developed until 3 weeks before frost. Formulated with 2,4-dichlorophenoxyacetic acid, dimethylamine salt; 2,4,5-trichlorophenoxyacetic acid, dimethylamine salt; or 2,4-dichlorophenoxyacetic acid, dimethylamine salt and 2-(2-methyl-4-chlorophenoxy)propionic acid, dimethylamine salt. |
| 1 part product/ 1 part water<br>(4 lb/gal SC/L) | Spot treatment. Wiper application for control of broadleaf weeds, brush and vines. |
| 0.50-1.00 ml solution/injection<br>(4 lb/gal SC/L) | Tree injection. Prepare the solution with 1 part product and 1 to 5 parts water. Inject into cuts that are 1 to 3 inches apart around the circumference of the tree. Cuts must penetrate the bark and cambium. |
| 0.50-1.00 ml product/injection<br>(4 lb/gal RTU) | |
| --<br>(4 lb/gal SC/L)<br>(0.918 lb/gal RTU)<br>(4 lb/gal RTU) | Frill and stump treatments. Dilute 1 part soluble concentrate with 1 to 5 parts water. |

## DICAMBA AND RELATED ACIDS, DIMETHYLAMINE SALT

| | Site, Dosage and Formulation (lb a.e./A) | Tolerance, Use, Limitations |
|---|---|---|
| | **AQUATIC AREAS** | |
| | (Adjacent to Water) | |
| /65013MB | Drainage Ditch Banks | |
| | 4.00-8.00<br>(4 lb/gal SC/L) | Soil application. Bracken control. Apply before frond emergence. Dilute in sufficient water to prepare 100 gallons of spray. |
| | 0.50-3.00<br>(4 lb/gal SC/L) | Broadcast. Tank mix with 2,4-dichlorophenoxyacetic acid. Apply in 30 to 35 gallons of water per acre with low volume equipment, 100 to 300 gallons with high volume equipment, or 15 to 30 gallons by air. Use the higher dosage for woody plant control. Apply anytime after weed foliage is fully developed and before dormancy. |
| | 0.126-3.33<br>(0.21-1 lb/gal SC/L) | Broadcast or spot treatment. Apply in 15 to 35 gallons of water per acre with low volume equipment, 100 to 300 gallons with high volume equipment, or 15 to 30 gallons by air. Use the higher dosages for woody plant control and apply after weed foliage is fully developed until 3 weeks before frost.<br>Formulated with 2,4-dichlorophenoxyacetic acid, dimethylamine salt; or 2,4-dichlorophenoxyacetic acid, dimethylamine salt and 2-(2-methyl-4-chlorophenoxy)propionic acid, dimethylamine salt. |

## DICAMBA AND RELATED ACIDS, DIMETHYLAMINE SALT

| Site, Dosage and Formulation (lb a.e./A) | Tolerance, Use, Limitations |
|---|---|

### AERIAL AND TANK MIX APPLICATIONS

9001500 Aerial Application

-- Refer to

AGRICULTURAL CROPS
Barley, Oats, Pastures (grasses) cluster, Rangeland (grasses), Sorghum, Wheat

AGRICULTURAL PREMISES
Noncrop Agricultural Areas

RIGHTS-OF-WAY
All sites

COMMERCIAL AND INDUSTRIAL PREMISES
All sites

FOREST, CHAPARRAL, NONAGRICULTURAL AND WASTELANDS
All sites

AQUATIC AREAS
(Adjacent to Water)
All sites

9900300 Tank Mix

-- Refer to

AGRICULTURAL CROPS
Asparagus, Barley, Corn (Field), Oats, Pastures (grasses) cluster, Rangeland (grasses), Wheat

AGRICULTURAL PREMISES
Noncrop Agricultural Areas

RIGHTS-OF-WAY
All sites

COMMERCIAL AND INDUSTRIAL PREMISES
All sites

FOREST, CHAPARRAL, NONAGRICULTURAL AND WASTELANDS
Noncrop Areas

AQUATIC AREAS
(Adjacent to Water)
All sites

## DICAMBA AND RELATED ACIDS, DIMETHYLAMINE SALT

### Listing of Registered Pesticide Products by Formulation

4 lb a.e./gal formulation intermediate
dicamba and related acids, dimethylamine salt (029802)
000876-00243

6 lb a.e./gal formulation intermediate
dicamba and related acids, dimethylamine salt (029802)
000876-00061

0.015% (0.013% a.e.) granular
dicamba and related acids, dimethylamine salt (029802), 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019) plus 2-(2-methyl-4-chlorophenoxy)propionic acid, dimethylamine salt (031519)
000557-01866

0.016% (0.014% a.e.) granular
dicamba and related acids, dimethylamine salt (029802), 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019) plus 2-(2-methyl-4-chlorophenoxy)propionic acid, dimethylamine salt (031519)
020954-00084

0.019% (0.016% a.e.) granular
dicamba and related acids, dimethylamine salt (029802), 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019) plus 2-(2-methyl-4-chlorophenoxy)propionic acid, dimethylamine salt (031519)
007401-00234

0.028% (0.024% a.e.) granular
dicamba and related acids, dimethylamine salt (029802), 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019) plus 2-(2-methyl-4-chlorophenoxy)propionic acid, dimethylamine salt (031519)
008660-00007

0.0332% (0.0237% a.e.) granular
dicamba and related acids, dimethylamine salt (029802) plus 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019)
008952-00006

0.049% (0.04% a.e.) granular
dicamba and related acids, dimethylamine salt (029802), 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019) plus 2-(2-methyl-4-chlorophenoxy)propionic acid, dimethylamine salt (031519)
000557-01867

0.053% (0.038% a.e.) granular
dicamba and related acids, dimethylamine salt (029802) plus 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019)
000577-01778

## DICAMBA AND RELATED ACIDS, DIMETHYLAMINE SALT

Listing of Registered Pesticide Products by Formulation (continued)

0.054% (0.045% a.e.) granular
dicamba and related acids, dimethylamine salt (029802), 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019) plus 2-(2-methyl-4-chlorophenoxy)propionic acid, dimethylamine salt (031519)
010942-00002

0.056% (0.047% a.e.) granular
dicamba and related acids, dimethylamine salt (029802), 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019) plus 2-(2-methyl-4-chlorophenoxy)propionic acid, dimethylamine salt (031519)
002217-00489

0.06% (0.054% a.e.) granular
dicamba and related acids, dimethylamine salt (029802), 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019) plus 2-(2-methyl-4-chlorophenoxy)propionic acid, dimethylamine salt (031519)
000539-00272

0.07% (0.055% a.e.) granular
dicamba and related acids, dimethylamine salt (029802), 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019) plus 2-(2-methyl-4-chlorophenoxy)propionic acid, dimethylamine salt (031519)
002491-00321

0.07% (0.06% a.e.) granular
dicamba and related acids, dimethylamine salt (029802), 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019) plus 2-(2-methyl-4-chlorophenoxy)propionic acid, dimethylamine salt (031519)
000557-01850

0.071% (0.059% a.e.) granular
dicamba and related acids, dimethylamine salt (029802), 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019) plus 2-(2-methyl-4-chlorophenoxy)propionic acid, dimethylamine salt (031519)
002217-00603

0.072% (0.06% a.e.) granular
dicamba and related acids, dimethylamine salt (029802), 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019) plus 2-(2-methyl-4-chlorophenoxy)propionic acid, dimethylamine salt (031519)
002217-00532   002217-00559

0.09% granular
dicamba and related acids, dimethylamine salt (029802), 2,4-dichlorophenoxyacetic acid (030001) plus 2-(2-methyl-4-chlorophenoxy)propionic acid (031501)
000802-00505

## DICAMBA AND RELATED ACIDS, DIMETHYLAMINE SALT

Listing of Registered Pesticide Products by Formulation (continued)

0.09% (0.075% a.e.) granular

dicamba and related acids, dimethylamine salt (029802), 2,4-dichlorophenoxyacetic acid (030001) plus 2-(2-methyl-4-chlorophenoxy)propionic acid (031501)
000550-00074

dicamba and related acids, dimethylamine salt (029802), 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019) plus 2-(2-methyl-4-chlorophenoxy)propionic acid, dimethylamine salt (031519)
002217-00560

0.1062% (0.0862% a.e.) granular

dicamba and related acids, dimethylamine salt (029802) plus 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019)
007401-00037

0.108% (0.09% a.e.) granular

dicamba and related acids, dimethylamine salt (029802), 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019) plus 2-(2-methyl-4-chlorophenoxy)propionic acid, dimethylamine salt (031519)
002217-00533 002217-00561

0.119% (0.086% a.e.) granular

dicamba and related acids, dimethylamine salt (029802) plus 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019)
007001-00322

0.125% (0.104% a.e.) granular

dicamba and related acids, dimethylamine salt (029802) plus 2,4-dichlorophenoxyacetic acid, alkanolamine salt (of the ethanol and iospropanol series) (030010)
003234-00017 024232-00003

0.2% (0.14% a.e.) granular

dicamba and related acids, dimethylamine salt (029802) plus 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019)
000557-01768

0.21% (0.15% a.e.) granular

dicamba and related acids, dimethylamine salt (029802) plus 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019)
009123-00008

0.236% (0.1916% a.e.) granular

dicamba and related acids, dimethylamine salt (029802) plus 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019)
007401-00033

## DICAMBA AND RELATED ACIDS, DIMETHYLAMINE SALT

Listing of Registered Pesticide Products by Formulation (continued)

**0.25% (0.18% a.e.) granular**

dicamba and related acids, dimethylamine salt (029802) plus 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019)
000557-01735

**0.306% (0.215% a.e.) granular**

dicamba and related acids, dimethylamine salt (029802) plus 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019)
002124-00644

**0.32% (0.23% a.e.) granular**

dicamba and related acids, dimethylamine salt (029802) plus 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019)
002169-00185

dicamba and related acids, dimethylamine salt (029802), 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019) plus N-butyl-N-ethyl-a,a,a-trifluoro-2,6-dinitro-p-toluidine
002169-00275

**0.33% (0.23% a.e.) granular**

dicamba and related acids, dimethylamine salt (029802) plus 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019)
000876-00053 000876-00054 004067-00003

**0.437% (0.32% a.e.) granular**

dicamba and related acids, dimethylamine salt (029802)
002491-00200

**0.7% (0.5% a.e.) granular**

dicamba and related acids, dimethylamine salt (029802) plus 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019)
000004-00169

**0.7112% (0.507% a.e.) granular**

dicamba and related acids, dimethylamine salt (029802) plus 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019)
000572-00181

**0.812% (0.574% a.e.) granular**

dicamba and related acids, dimethylamine salt (029802) plus 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019)
002124-00678

**2.83% (2% a.e.) granular**

dicamba and related acids, dimethylamine salt (029802)
000876-00051

## DICAMBA AND RELATED ACIDS, DIMETHYLAMINE SALT

Listing of Registered Pesticide Products by Formulation (continued)

0.045 lb a.e./gal emulsifiable concentrate

dicamba and related acids, dimethylamine salt (029802), 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019) plus 2-(2-methyl-4-chlorophenoxy)propionic acid, dimethylamine salt (031519)
000904-00194

0.06 lb a.e./gal emulsifiable concentrate

dicamba and related acids, dimethylamine salt (029802), 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019) plus 2-(2-methyl-4 chlorophenoxy)propionic acid, dimethylamine salt (031519)
000192-00118 000572-00273 000904-00193 005535-00087

0.094 lb a.e./gal emulsifiable concentrate

dicamba and related acids, dimethylamine salt (029802), 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019) plus 2-(2-methyl-4-chlorophenoxy)propionic acid, dimethylamine salt (031519)
006720-00178

0.097 lb a.e./gal emulsifiable concentrate

dicamba and related acids, dimethylamine salt (029802), 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019) plus 2-(2-methyl-4-chlorophenoxy)propionic acid, dimethylamine salt (031519)
000904-00195

0.11 lb a.e./gal emulsifiable concentrate

dicamba and related acids, dimethylamine salt (029802) plus 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019)
000004-00173

0.145 lb a.e./gal emulsifiable concentrate

dicamba and related acids, dimethylamine salt (029802) plus 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019)
005887-00068

0.25 lb a.e./gal emulsifiable concentrate

dicamba and related acids, dimethylamine salt (029802) plus 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019)
000072-00548 000572-00177 002125-00016

0.26 lb a.e./gal emulsifiable concentrate

dicamba and related acids, dimethylamine salt (029802) plus 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019)
000904-00146

0.5 lb a.e./gal emulsifiable concentrate

dicamba and related acids, dimethylamine salt (029802) plus 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019)
000407-00264 000407-00291

## DICAMBA AND RELATED ACIDS, DIMETHYLAMINE SALT

Listing of Registered Pesticide Products by Formulation (continued)

1.5 lb a.e./gal emulsifiable concentrate
dicamba and related acids, dimethylamine salt (029802) plus 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019)
000334-00305 000572-00172

4 lb a.e./gal emulsifiable concentrate
dicamba and related acids, dimethylamine salt (029802)
002749-00174

0.26% (0.22% a.e.) emulsifiable concentrate
dicamba and related acids, dimethylamine salt (029802), 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019) plus 2-(2-methyl-4-chlorophenoxy)propionic acid, dimethylamine salt (031519)
000478-00043

14.22% (10.15% a.e.) emulsifiable concentrate
dicamba and related acids, dimethylamine salt (029802) plus 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019)
003468-00047

0.015 lb a.e./gal soluble concentrate/liquid
dicamba and related acids, dimethylamine salt (029802), 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019) plus 2-(2-methyl-4-chlorophenoxy)propionic acid, dimethylamine salt (031519)
011524-00003

0.018 lb a.e./gal soluble concentrate/liquid
dicamba and related acids, dimethylamine salt (029802), 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019) plus 2-(2-methyl-4-chlorophenoxy)propionic acid, dimethylamine salt (031519)
002155-00062 006837-00054

0.021 lb a.e./gal soluble concentrate/liquid
dicamba and related acids, dimethylamine salt (029802), 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019) plus 2-(2-methyl-4-chlorophenoxy)propionic acid, dimethylamine salt (031519)
002155-00061

0.03013 lb a.e./gal soluble concentrate/liquid
dicamba and related acids, dimethylamine salt (029802), 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019) plus 2-(2-methyl-4-chlorophenoxy)propionic acid, dimethylamine salt (031519)
000557-01847

0.0375 lb a.e./gal soluble concentrate/liquid
dicamba and related acids, dimethylamine salt (029802), 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019) plus 2-(2-methyl-4-chlorophenoxy)propionic acid, dimethylamine salt (031519)
000557-01770

## DICAMBA AND RELATED ACIDS, DIMETHYLAMINE SALT

Listing of Registered Pesticide Products by Formulation (continued)

0.045 lb a.e./gal soluble concentrate/liquid

dicamba and related acids, dimethylamine salt (029802), 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019) plus 2-(2-methyl-4-chlorophenoxy)propionic acid, dimethylamine salt (031519)
001553-00084 002217-00540 005197-00046 010120-00015

0.0465 lb a.e./gal soluble concentrate/liquid

dicamba and related acids, dimethylamine salt (029802), 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019) plus 2-(2-methyl-4-chlorophenoxy)propionic acid, dimethylamine salt (031519)
000557-01769

0.052 lb a.e./gal soluble concentrate/liquid

dicamba and related acids, dimethylamine salt (029802), 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019) plus 2-(2-methyl-4-chlorophenoxy)propionic acid, dimethylamine salt (031519)
002217-00516

0.059 lb a.e./gal soluble concentrate/liquid

dicamba and related acids, dimethylamine salt (029802), 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019) plus 2-(2-methyl-4-chlorophenoxy)propionic acid, dimethylamine salt (031519)
002217-00539

0.06 lb a.e./gal soluble concentrate/liquid

dicamba and related acids, dimethylamine salt (029802), 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019) plus 2-(2-methyl-4-chlorophenoxy)propionic acid, dimethylamine salt (031519)
002217-00507 009205-00026 012310-00015

0.07 lb a.e./gal soluble concentrate/liquid

dicamba and related acids, dimethylamine salt (029802), 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019) plus 2-(2-methyl-4-chlorophenoxy)propionic acid, dimethylamine salt (031519)
002169-00263

0.075 lb a.e./gal soluble concentrate/liquid

dicamba and related acids, dimethylamine salt (029802), 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019) plus 2-(2-methyl-4-chlorophenoxy)propionic acid, dimethylamine salt (031519)
000802-00485

0.08 lb a.e./gal soluble concentrate/liquid

dicamba and related acids, dimethylamine salt (029802), 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019) plus 2-(2-methyl-4-chlorophenoxy)propionic acid, dimethylamine salt (031519)
000869-00123

## DICAMBA AND RELATED ACIDS, DIMETHYLAMINE SALT

Listing of Registered Pesticide Products by Formulation (continued)

0.09 lb a.e./gal soluble concentrate/liquid
dicamba and related acids, dimethylamine salt (029802), 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019) plus 2-(2-methyl-4-chlorophenoxy)propionic acid, dimethylamine salt (031519)
002217-00597

0.093 lb a.e./gal soluble concentrate/liquid
dicamba and related acids, dimethylamine salt (029802), 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019) plus 2-(2-methyl-4-chlorophenoxy)propionic acid, dimethylamine salt (031519)
002217-00570

0.094 lb a.e./gal soluble concentrate/liquid
dicamba and related acids, dimethylamine salt (029802), 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019) plus 2-(2-methyl-4-chlorophenoxy)propionic acid, dimethylamine salt (031519)
001386-00569 012310-00016

0.097 lb a.e./gal soluble concentrate/liquid
dicamba and related acids, dimethylamine salt (029802), 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019) plus 2-(2-methyl-4-chlorophenoxy)propionic acid, dimethylamine salt (031519)
006993-00041

0.098 lb a.e./gal soluble concentrate/liquid
dicamba and related acids, dimethylamine salt (029802), 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019) plus 2-(2-methyl-4-chlorophenoxy)propionic acid, dimethylamine salt (031519)
002217-00536

0.168 lb a.e./gal soluble concentrate/liquid
dicamba and related acids, dimethylamine salt (029802) plus 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019)
002169-00260

0.17 lb a.e./gal soluble concentrate/liquid
dicamba and related acids, dimethylamine salt (029802) plus 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019)
005605-00099

0.184 lb a.e./gal soluble concentrate/liquid
dicamba and related acids, dimethylamine salt (029802) plus 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019)
000192-00055

0.19 lb a.e./gal soluble concentrate/liquid
dicamba and related acids, dimethylamine salt (029802), 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019) plus 2-(2-methyl-4-chlorophenoxy)propionic acid, dimethylamine salt (031519)
002217-00529

## DICAMBA AND RELATED ACIDS, DIMETHYLAMINE SALT

Listing of Registered Pesticide Products by Formulation (continued)

0.21 lb a.e./gal soluble concentrate/liquid

dicamba and related acids, dimethylamine salt (029802), 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019) plus 2-(2-methyl-4-chlorophenoxy)propionic acid, dimethylamine salt (031519)

002217-00543

0.22 lb a.e./gal soluble concentrate/liquid

dicamba and related acids, dimethylamine salt (029802), 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019) plus 2-(2-methyl-4-chlorophenoxy)propionic acid, dimethylamine salt (031519)

002217-00517

0.23 lb a.e./gal soluble concentrate/liquid

dicamba and related acids, dimethylamine salt (029802) plus 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019)

000876-00064

0.25 lb a.e./gal soluble concentrate/liquid

dicamba and related acids, dimethylamine salt (029802) plus 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019)

002217-00422    002217-00441    002217-00457    005605-00095

0.26 lb a.e./gal soluble concentrate/liquid

dicamba and related acids, dimethylamine salt (029802) plus 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019)

040831-00070

0.284 lb a.e./gal soluble concentrate/liquid

dicamba and related acids, dimethylamine salt (029802) plus 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019)

007401-00040

0.32 lb a.e./gal soluble concentrate/liquid

dicamba and related acids, dimethylamine salt (029802), 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019) plus 2-(2-methyl-4-chlorophenoxy)propionic acid, dimethylamine salt (031519)

002217-00530

0.34 lb a.e./gal soluble concentrate/liquid

dicamba and related acids, dimethylamine salt (029802), 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019) plus 2-(2-methyl-4-chlorophenoxy)propionic acid, dimethylamine salt (031519)

002217-00639

## DICAMBA AND RELATED ACIDS, DIMETHYLAMINE SALT

Listing of Registered Pesticide Products by Formulation (continued)

### 0.5 lb a.e./gal soluble concentrate/liquid

dicamba and related acids, dimethylamine salt (029802) plus 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019)
000746-00100 001386-00467 034704-00084

dicamba and related acids, dimethylamine salt (029802), 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019) plus 2-(2-methyl-4-chlorophenoxy)propionic acid, dimethylamine salt (031519)
002217-00624 002217-00644 017058-00002

### 0.918 lb a.e./gal soluble concentrate/liquid

dicamba and related acids, dimethylamine salt (029802)
000004-00172

### 1 lb a.e./gal soluble concentrate/liquid

dicamba and related acids, dimethylamine salt (029802) plus 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019)
000876-00177 000876-00203 000876-00205

dicamba and related acids, dimethylamine salt (029802) plus 2,4,5-trichlorophenoxyacetic acid, dimethylamine salt (082019)
000876-00176

dicamba and related acids, dimethylamine salt (029802), 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019) plus 2,4,5-trichlorophenoxyacetic acid, dimethylamine salt (082019)
000876-00179 000876-00204

### 1.25 lb a.e./gal soluble concentrate/liquid

dicamba and related acids, dimethylamine salt (029802) plus 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019)
000876-00044 001386-00559

dicamba and related acids, dimethylamine salt (029802) plus 2-methyl-4-chlorophenoxy)acetic acid, dimethylamine salt (030516)
000876-00045

### 1.5 lb a.e./gal soluble concentrate/liquid

dicamba and related acids, dimethylamine salt (029802) plus 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019)
000876-00042 000876-00050 000876-00118

### 4 lb a.e./gal soluble concentrate/liquid

dicamba and related acids, dimethylamine salt (029802)
000876-00025 000876-00037 000876-00120 000876-00159

### 1.66% (1.19% a.e.) soluble concentrate/liquid

dicamba and related acids, dimethylamine salt (029802) plus 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019)
007401-00171

## DICAMBA AND RELATED ACIDS, DIMETHYLAMINE SALT

Listing of Registered Pesticide Products by Formulation (continued)

1.95% (1.4% a.e.) soluble concentrate/liquid
dicamba and related acids, dimethylamine salt (029802), 2,4-dichlorophenoxyacetic acid, triethylamine salt (030034) plus silvex, triethylamine salt (082534)
000802-00087

2.4% (2% a.e.) soluble concentrate/liquid
dicamba and related acids, dimethylamine salt (029802) plus 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019)
000539-00226 008222-00033

56.9% soluble concentrate/liquid
dicamba and related acids, dimethylamine salt (029802)
000572-00171

0.918 lb a.e./gal liquid-ready to use
dicamba and related acids, dimethylamine salt (029802)
000004-00172

4 lb a.e./gal liquid-ready to use
dicamba and related acids, dimethylamine salt (029802)
000876-00159

0.025% (0.021% a.e.) liquid-ready to use
dicamba and related acids, dimethylamine salt (029802), 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019) plus 2-(2-methyl-4-chlorophenoxy)propionic acid, dimethylamine salt (031519)
000478-00044

0.064% (0.0536% a.e.) liquid-ready to use
dicamba and related acids, dimethylamine salt (029802), 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019) plus 2-(2-methyl-4-chlorophenoxy)propionic acid, dimethylamine salt (031519)
001553-00083 002217-00585

0.066% (0.055% a.e.) liquid-ready to use
dicamba and related acids, dimethylamine salt (029802), 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019) plus 2-(2-methyl-4-chlorophenoxy)propionic acid, dimethylamine salt (031519)
002217-00537

0.029% (0.0249% a.e.) pressurized liquid
dicamba and related acids, dimethylamine salt (029802), 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019) plus 2-(2-methyl-4-chlorophenoxy)propionic acid, dimethylamine salt (031519)
000802-00513

## DICAMBA AND RELATED ACIDS, DIMETHYLAMINE SALT

Listing of Registered Pesticide Products by Formulation (continued)

0.31% (0.25% a.e.) pressurized liquid

dicamba and related acids, dimethylamine salt (029802) plus 2,4-dichlorophenoxyacetic acid, alkanolamine salt (of the ethanol and iospropanol series) (030010)

000538-00048 005887-00071

0.36% (0.25% a.e.) pressurized liquid

dicamba and related acids, dimethylamine salt (029802) plus 2,4-dichlorophenoxyacetic acid, alkanolamine salt (of the ethanol and iospropanol series) (030010)

010900-00035

0.52% (0.36% a.e.) pressurized liquid

dicamba and related acids, dimethylamine salt (029802) plus 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019)

008555-00001

0.64% (0.53% a.e.) pressurized liquid

dicamba and related acids, dimethylamine salt (029802) plus 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019)

000869-00097

0.74% (0.53% a.e.) pressurized liquid

dicamba and related acids, dimethylamine salt (029802) plus 2,4-dichlorophenoxyacetic acid, dimethylamine salt (030019)

000539-00212 008222-00035

## DICAMBA AND RELATED ACIDS, DIMETHYLAMINE SALT

### State Label Registrations

AL Reg. No.
000876-07802

AZ Reg. No.
000876-07803

CA Reg. No.
000876-07918 000876-07919 011093-07366 011204-04103

CO Reg. No.
000876-07793 008773-04613 037351-05369 037351-05524
037351-05525

FL Reg. No.
000539-09224 000876-07917 000876-07924 000876-07926
009404-03487 033356-03496 037347-03114

GA Reg. No.
000876-07922 000876-07923

ID Reg. No.
000876-07907 000876-007913 000876-07914 000876-07915
000876-07916

IN Reg. No.
000876-07911 000876-07912

KY Reg. No.
000876-07910

LA Reg. No.
000876-07921

MI Reg. No.
038411-10063

MS Reg. No.
000876-07941

MO Reg. No.
010371-07486

MI Reg. No.
000876-07939 000876-07940

ND Reg. No.
000876-07927

NE Reg. No.
000876-07937

## II. REQUIREMENT FOR SUBMISSION OF GENERIC DATA

A. This portion of the guidance document is a Notice issued under the authority of FIFRA Section 3(c)(2)(B) and describes, in table format, the data required for maintaining the registrability of each product. Additionally, a bibliography (Appendix II-1) is included that identifies that data considered as part of the data base supporting this standard. EPA has determined that additional generic data described in this Notice must be submitted to EPA for evaluation in order to maintain in effect the registration(s) of your product(s) identified as an attachment to the cover letter accompanying this guidance document. As required by FIFRA Section 3(c)(2)(B), you are required to take appropriate steps to comply with this Notice.

EPA may suspend the registration of each of those products unless, within the specified time, you have informed EPA how you will satisfy the requirements of this Notice. Any such suspension will remain in effect until you have complied with the terms of this Notice.

B. What Generic Data 1/ Must Be Submitted. You may ascertain which generic data you must submit by consulting Table A at the end of this chapter. That table shows all the generic data needed to evaluate the continued registrability of all products, and the dates by which the data must be submitted. The required data must be submitted 2/. Any necessary studies must be conducted in accordance with EPA-approved protocols, the Pesticide Registration Guidelines 3/, or data collected under the approved protocols of the Organization for Economic Cooperation and Development (OECD). If you wish not to develop data which are necessary to support the registration or reregistration of certain uses appearing in your labeling, you may delete those uses at the time you submit your revised labeling.

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1/ Generic data pertain to the properties or effects of a particular ingredient, and thus are relevant to an evaluation of the risks of all products containing that ingredient (or all such products having a certain use pattern), regardless of any such product's unique composition or use. Produc-specific data relate only to the properties or effects of a product with a particular composition (or a group of products with closely similar composition).

2/ USEPA, 1982. Pesticide Registration; Proposed Data Requirements - Part 158. FEDERAL REGISTER of November 24, 1982 (47 FR 53192)

3/ USEPA, 1983. Pesticide Assessment Guidelines, National Technical Information Service, Springfield, VA.

Also for certain kinds of testing (generally ecological effects), EPA requires the test substance to be a "typical formulation," and in those cases EPA needs data of that type for each major formulation category (e.g., emulsifiable concentrates, wettable powders, granulars, etc.) These are classified as generic data and when needed are specified in Table A. EPA may possess data on certain "typical formulations" but not others. Note: The "typical formulation" data should not be confused with product-specific data (Table B) which are required on each formulation. Product-specific data are further explained in Chapter IV of this document.

## C. Options Available for Complying With Requirements to Submit Data

Within 90 days of your receipt of this Notice you must submit to EPA a completed copy of the form entitled "FIFRA Section 3(c)(2)(B) Summary Sheet" [EPA Form 8580-1, Appendix II-2] for each of your products. On that form you must state which of the following methods you will use to comply with the requirements of this Notice:

1. (a) Notify EPA that you will submit the data, and

   (b) either submit the existing data you believe will satisfy the requirement, or state that you will generate the data by conducting testing. If the test procedures you will use deviate from (or are not specified in) the Registration Guidelines or protocols contained in the Reports of Expert Groups to the Chemicals Group, Organization for Economic Cooperation and Development (OECD) Chemicals Testing Programme, you must enclose the protocols you will use.

2. Notify EPA that you have entered into an agreement with one or more other registrants to jointly develop (or share in the cost of developing) the data. If you elect this option, you must notify EPA which registrant(s) are parties to the agreement.

3. File with EPA a completed "Certification of Attempt to Enter Into an Agreement With Other Registrants for Development of Data" (EPA Form 8580-6, Appendix II-3)*/

4. Request that EPA amend your registration by deleting the uses for which the data are needed. (This option is not available to applicants for new products.)

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*/ FIFRA Section 3(c)(2)(B) authorizes joint development of data by two or more registrants, and provides a mechanism by which parties can obtain an arbitrator's decision if they agree (Footnote continued at bottom of next page)

5. Request voluntary cancellation of the registration(s) of your products for which the data are needed. (This option is not available to applicants for new products.)

D. Procedures for Requesting Changes in Testing Methodology and Extensions of Time

EPA recognizes that you may disagree with our conclusions regarding the appropriate ways to develop the required data or how quickly the data must be submitted. If the test procedures you plan to use deviate from (or are not specified in) the registration guidelines or protocols contained in the reports of the Expert Groups to the Chemical Groups, Organization for Economic Cooperation and Development (OECD) Chemicals Testing Programme, you must submit the protocol for Agency review prior to the initiation of the test.

If you think that you will need more time to generate the required data than is allowed by EPA's schedule, you may submit a request for an extension of time. The extension request must be submitted in writing to the Product Manager. The extension request should state the reasons why you conclude that an extension is appropriate. While EPA considers your request, you must strive to meet the deadline for submitting the required data.

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(Footnote continued from previous page)
to jointly develop data but fail to agree on all the terms of the agreement. The statute does not compel any registrant to agree to develop data jointly.

In EPA's opinion, joint data development by all registrants who are subject to the requirements to submit a pertinent item of data or a cost-sharing agreement among all such registrants is clearly in the public interest. Duplication of testing could increase costs, tie up testing facilities, and subject an unnecessarily large number of animals to testing.

As noted earlier, EPA has discretion not to suspend the registration of a product when a registrant fails to submit data required under FIFRA Section 3(c)(2)(B). EPA has concluded that it is appropriate to exercise its discretion not to suspend in ways which will discourage duplicative testing. Accordingly, if (1) a registrant has informed us of his intent to develop and submit data required by this Notice; and (2) a second registrant informs EPA that it has made a bona fide offer to the first registrant to share in the expenses of the testing [on terms to be agreed upon or determined by arbitration under FIFRA Section 3(c)(2)(B)(iii)]; and (3) the first registrant has declined to agree to enter into a cost-sharing agreement, EPA will not suspend the second firm's registration. While the first firm is not required to agree to jointly develop data, EPA is not required to force the second firm to engage in economically inefficient duplicative testing in order to maintain its registration.

## PRODUCT CHEMISTRY
## Table A
## Generic Data Requirements - Dicamba

| Data Requirement | Composition1/ | Does EPA Have Data to Satisfy This Requirement? (Yes, No or Partially) | Bibliographic Citation | Must Additional Data Be Submitted Under FIFRA Section 3(c)(2)(B)?2/ |
|---|---|---|---|---|
| §158.120 Product Chemistry | | | | |
| Product Identity: | | | | |
| 61-1 - Product Identity and Disclosure of Ingredients | TGAI | Yes | 00035914, 00066365, 00066372, GS0065-22<br>00038389, 00066366, 00082611, GS0065-23<br>00066360, 00066367, GS0065-9, GS0065-24<br>00066362, 00066368, GS0065-10, GS0065-25<br>00066363, 00066369, GS0065-15, GS0065-26<br>00066364, 00066370, GS0065-16, GS0065-27<br>GS0065-19, GS0065-31 | No |
| Description of Manufacturing Process | TGAI | Yes | 00028339, 00066353, 00066363<br>00028354, 00066354, 00066364<br>00038389, 00066355, 00082610<br>00066346, 00066358, 00082611<br>00066347, 00066361, GS0065-22<br>00066348, 00066362 | No |
| Discussion of Formation of Unintentional Ingredients | TGAI | Yes | 00035914, 00066365, 00066372, GS0065-22<br>00038389, 00066366, 00082611, GS0065-23<br>00066360, 00066367, GS0065-9, GS0065-24<br>00066362, 00066368, GS0065-10, GS0065-25<br>00066363, 00066369, GS0065-15, GS0065-26<br>00066364, 00066370, GS0065-27, GS0065-27<br>GS0065-19, GS0065-31 | No |
| Analysis and Certification of Product Ingredients | | | | |
| 62-1 Preliminary Analysis | TGAI<br>TEP | Partial<br>No | GS0065-24<br>GS0065-31 | Yes3/<br>Yes5/ |
| 62-2 Certification of Limits | TGAI | Partial | GS0065-24<br>GS0065-31 | Yes4/ |
| 62-3 Analytical Methods for Enforcement of Limits | TGAI | Yes | GS0065-24<br>GS0065-31 | No |
| Physical and Chemical Characteristics | | | | |
| 63-2 - Color | TGAI | Yes | 00028358, GS0065-22<br>00066365, GS0065-25<br>GS0065-26 | No |

PRODUCT CHEMISTRY
Table A
Generic Data Requirements - Dicamba

| Data Requirement | Composition[1/] | Does EPA Have Data to Satisfy This Requirement? (Yes, No or Partially) | Bibliographic Citation | Must Additional Data Be Submitted Under FIFRA Section 3(c)(2)(B)?[2/] |
|---|---|---|---|---|
| §158.120 Product Chemistry (cont'd) | | | | |
| 63-3 - Physical state | TGAI | Yes | 00066365<br>GS0065-22<br>GS0065-25<br>GS0065-26 | No |
| 63-4 - Odor | TGAI | Yes | 00066365 | No |
| 63-6 - Boiling point | TGAI | Yes | 00066365 | No |
| 63-7 - Density, bulk density or specific gravity | TGAI | Yes | 00066365 | No |
| 63-8 - Solubility | TGAI | Yes | 00066365, GS0065-22<br>GS0065-25<br>GS0065-26 | No |
| 63-9 - Vapor pressure | PAI | Yes | 0066365, GS0065-22<br>0066366, GS0065-27<br>0006639, | No |
| 63-10 - Dissociation constant | TGAI, PAI | Yes | 0066365, GS0065-26<br>0066368, GS0065-27<br>0006639, | No |
| 63-11 - Octanol/Water Partition Coefficient | PAI | Yes | 00066365<br>00066370 | No |
| 63-12 - pH | TGAI, PAI | Yes | 00066365 | No |
| 63-13 - Stability | TGAI | Yes | 00066365 | No |

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1/ Composition: TGAI= Technical grade of the active ingredient; PAI= Pure active ingredient; TEP= Typical end-use product.
2/ Additional data must be submitted within six months from the issue date of the guidance package.
3/ Analytical results on a minimum of 5 lots from the manufacturing process are needed.
4/ A Certification of ingredient limits must be supplied.
5/ Testing for nitrosoamine contamination is required for TEP.

RESIDUE CHEMISTRY
Table A
Generic Data Requirements - Dicamba

| Data Requirement | Composition1/ | Does EPA Have Data to Satisfy This Requirement? (Yes, No or Partially) | Bibliographic Citation | Must Additional Data Be Submitted Under FIFRA Section 3(c)(2)(B)?2/ |
|---|---|---|---|---|
| §158.125 Residue Chemistry | | | | |
| 171-4 Nature of Residue (Metabolism) | | | | |
| - Plants | PAIRA | Yes | 00079735, GS0065-1, GS0065-8<br>00087668, GS0065-2 GS0065-9<br>00102945, GS0065-3 GS0065-13<br>00118473, GS0065-4 GS0065-21 | No |
| - Livestock | PAIRA and plant metabolites | Yes | 00023106, GS0065-8<br>00023107, GS0065-15<br>00025363, GS0065-16<br>00028257<br>00028261<br>00077779<br>00087668 | No |
| 171-4 - Residue Analytical Method | | | | |
| - Plant Residues | TGAI and metabolites | Yes | 00066356, GS0065-5, GS0065-13<br>00066357, GS0065-7, GS0065-15<br>00066373, GS0065-8, GS0065-17<br>00066375, GS0065-9, GS0065-28<br>00079735, GS0065-10<br>00079736, GS0065-11 | No |
| - Animal Residues | TGAI and metabolites | Yes | 00066356, GS0065-6, GS0065-15<br>00066357, GS0065-8<br>00066373, GS0065-9<br>00079735, GS0065-10<br>00128088 | No |
| 171-4 - Storage Stability Data | PAI | No | | Yes3/ |
| 171-4 - Magnitude of the Residue Residue Studies for Each Food Use | | | | |
| - | Crop Group | | | |
| - Asparagus | TEP | Yes | GS0065-11, GS0065-16, GS0065-20<br>GS0065-12, GS0065-18, GS0065-28<br>GS0065-13, GS0065-19, GS0065-29 | No |
| - Barley4/ | TEP | Yes | GS0065-32 | No |

## RESIDUE CHEMISTRY
### Table A
### Generic Data Requirements - Dicamba

| Data Requirement | Composition1/ | Does EPA Have Data to Satisfy This Requirement? (Yes, No or Partially) | Bibliographic Citation | Must Additional Data Be Submitted Under FIFRA Section 3(c)(2)(B)?2/ |
|---|---|---|---|---|
| §158.125 Residue Chemistry (cont'd) | | | | |
| - Corn5/ | TEP | Yes | GS0065-32 | No |
| - Grasses6/ | TEP | Yes | GS0065-30, GS0065-31 | |
| - Millet, proso7/ | TEP | Yes | 00025330, 00025331, 00025332, GS0065-32 | No |
| - Oats8/ | TEP | Yes | GS0065-32 | No |
| - Sorghum9/ | TEP | Partial | GS0065-33, GS0065-34 | Yes9/ |
| 171-4 - Magnitude of the Residue-Residue Studies | | | | |
| - Sugarcane10/ | TEP | Yes | 00079737, 00079738, 00079747 | No |
| - Wheat11/ | TEP | Yes | GS0065-32 | No |
| Processed Crops | | | | |
| Sugarcane Molasses | TEP | Yes | 00079737, 00079738, 00079747 | No |
| Meat and Milk | TGAI | Yes | 00023106, 00066386, 00079744<br>00066381, 00079735, 00116671<br>00066383, 00079740, GS0065-8<br>00066384, 00079742, GS0065-14<br>00066385, 00079743 | No |
| Poultry and Eggs | TGAI | No | | Yes12/ |

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1/ Composition: TGAI= Technical grade of the active ingrdient; PAIRA= Pure active ingredient, radiolabelled; PAI= Pure active ingredient; TEP= Typical end-use product.
2/ Data must be submitted no later than four years after the issue date of the guidance package.
3/ Storage stability data must be submitted unless it can be shown that the samples were analyzed promptly.
4/ Barley includes barley grain and barley straw.
5/ Corn includes corn grain, corn fodder and corn forage.
6/ Grasses include pasture and rangeland grasses and grass hay.
7/ Millet, proso includes millet proso, grain and millet proso, straw.
8/ Oats include oat grain and oat straw.
9/ Sorghum includes sorghum grain, sorghum fodder and sorghum forage. Data on residues in sorghum milling fractions are needed.
10/ Sugarcane includes sugarcane, sugarcane molasses, sugarcane fodder and sugarcane forage.
11/ Wheat includes wheat grain and wheat straw.
12/ Data on residues in poultry and eggs and a poultry feeding study are needed.

ENVIRONMENTAL FATE
Table A
Generic Data Requirements - Dicamba

| Data Requirement | Composition1/ | Use 2/ Pattern | Does EPA Have Data To Satisfy This Requirement? (Yes, No or Partially) | Bibliographic Citation | Must Additional Data Be Submitted Under FIFRA Section 3(c)(2)(B)?3/ |
|---|---|---|---|---|---|
| §158.130 Environmental Fate | | | | | |
| DEGRADATION STUDIES-LAB: | | | | | |
| 161-1 - Hydrolysis | TGAI or PAIRA | A,B,C,D | No4/ | | Yes |
| Photodegradation | | | | | |
| 161-2 - In Water | TGAI or PAIRA | A,C,D | No5/ | | Yes |
| 161-3 - On Soil | TGAI or PAIRA | A | No6/ | | Yes |
| 161-4 - In air | TGAI or PAIRA | A | N/A7/ | | No |
| METABOLISM STUDIES-LAB: | | | | | |
| 162-1 - Aerobic Soil | TGAI or PAIRA | A,B,C | Partial8/ | 00023090, 00023097<br>00023091<br>00023092 | Yes |
| 162-2 - Anaerobic Soil | TGAI or PAIRA | A,D | 162-39/ replaces 162.2 | - | No |
| 162-3 - Anaerobic Aquatic | TGAI or PAIRA | D | No4/ | - | Yes |
| 162-4 - Aerobic Aquatic | TGAI or PAIRA | D | No10/ | - | Yes |
| MOBILITY STUDIES: | | | | | |
| 163-1 - Leaching and Adsorption/Desorption | TGAI or PAIRA | A,B,C | Partial11/ | 00001450<br>00023098<br>00044017 | Yes |
| 163-2 - Volatility (Lab) | TEP | A | No12/ | | Yes |
| 163-3 - Volatility (Field) | TEP | A | No4/ | | Yes |
| DISSIPATION STUDIES - FIELD: | | | | | |
| 164-1 - Soil (terrestrial) | TEP | A,B,C,D, | No13/ | - | Yes |
| 164-2 - Aquatic (water) | TEP | D | No | - | Yes |
| 164-3 - Forestry | - | - | N/A7/ | | - |

ENVIRONMENTAL FATE
Table A
Generic Data Requirements - Dicamba

| Data Requirement | Composition1/ | Use 2/ Pattern | Does EPA Have Data To Satisfy This Requirement? (Yes, No or Partially) | Bibliographic Citation | Must Additional Data Be Submitted Under FIFRA Section 3(c)(2)(B)?3/ |
|---|---|---|---|---|---|
| §158.130 Environmental Fate (continued) | | | | | |
| 164-4 - Combination and Tank Mixes | - | _ | N/A7/ | | - |
| 164-5 - Soil, Long-term | TEP | A,B | No14/ | - | Reserved14/ |
| ACCUMULATION STUDIES | | | | | |
| 165-1 - Rotational Crops (Confined) | TGAI or PAIRA | A | No4/ | | Yes |
| 165-2 - Rotational Crops (Field) | TEP | A | No15/ | | Yes |
| 165-3 - Irrigated Crops | TEP | D | No16/ | - | Yes |
| 165-4 - In Fish | TGAI or PAIRA | A,C,D | No17/ | - | Yes |
| 165-5 - In Aquatic Non-Target Organisms | TEP | D | No4/ | - | Yes |
| Subpart K Reentry | - | - | No7/ | - | No |

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1/ Composition: TGAI = Technical grade of the active ingredient; PAIRA = Pure active ingredient, radiolabelled; TEP = Typical end-use product.
2/ The use patterns are coded as follows: A. terrestrial food crop; B. domestic outdoor; C. terrestrial non-food; D. aquatic-noncrop.
3/ Data must be submitted no later than four years after the issue date of the guidance package.
4/ No data submitted. All data are required.
5/ Studies submitted do not fulfill guideline requirements because bioassay used.
6/ Studies invalid because dark control not run and length experiment only 7-days - not carried out on soil.
7/ N/A - Not applicable: Data requirement is not necessary for the purposes of this standard.
8/ Studies showing formation and decline of degradates are required.
9/ Anaerobic aquatic study replaces the anaerobic soil study.
10/ Studies invalid because controls were not run and the data from the graphs could not be precisely quantified.
11/ A study showing mobility in aged dicamaba is required.
12/ Studies do not meet requirements because: a) not conducted in soil; b) TEP not used; c) sampling and temperature not acceptable.
13/ Eighteen studies invalidated because a) controls contaminated with parent; b) procedures or methods inadequate or not fully described, c) Frequency of sampling did not permit rate of dissipation to be evaluated; d) nonspecific bioassay used; e) type of TEP not fully described (all data required).
14/ No data were submitted, but data may be required depending on the results from the field dissipation/aerobic soil metabolism studies.
15/ Eight studies invalidated because soil residue samples not taken or procedures and protocols inadequate or inadequately described (all data required).
16/ Study does not fulfill requirement because plant residue samples not taken, irrigation applied only once (not proper agricultural practice).
17/ Study invalid because exposure of fish to test chemical was 3 days only (all data required).

ENVIRONMENTAL FATE
Table A
Generic Data Requirements - Dicamba

| Data Requirement | Composition1/ | Use 2/ Pattern | Does EPA Have Data To Satisfy This Requirement? (Yes, No or Partially) | Bibliographic Citation | Must Additional Data Be Submitted Under FIFRA Section 3(c)(2)(B)?3/ |
|---|---|---|---|---|---|
| §158.135 Toxicology | | | | | |
| ACUTE TESTING: | | | | | |
| 81-1 - Oral $LD_{50}$ - Rat | TGAI | A,B,D,H | Yes | 00025371<br>00078444 | No |
| 81-2 - Dermal $LD_{50}$ | TGAI | A,B,D,H | Yes | 00025371 | No |
| 81-3 - Inhalation $LC_{50}$ - Rat | TGAI | A,B,D,H | Yes | 00025371<br>00028234 | No |
| 81-7 - Acute Delayed Neurotoxicity - Hen | TGAI | A,B,D,H | N/A4/ | | No |
| SUBCHRONIC TESTING: | | | | | |
| 82-1 - 90-Day Feeding - Rodent, Non-rodent | TGAI | A | Yes<br>No | 00128093 | No |
| 82-2 - 21-Day Dermal | TGAI | A,B,D,H | Yes | 00128090<br>00128091 | Yes |
| 82-3 - 90-Day Dermal | TGAI | A,B,D,H | No | - | N/A4/ |
| 82-4 - 90-Day Inhalation - Rat | TGAI | A,B,D,H | No | | Yes |
| 82-5 - 90-Day Neurotoxicity - Hen/Mammal | TGAI | A,B,D,H | N/A4/ | | No |
| CHRONIC TESTING: | | | | | |
| 81-1 - Chronic Toxicity - 2 species: Rodent and Non-rodent | TGAI | A,B,D,H | No | - | Yes5/ |

## TOXICOLOGY
## Table A
## Generic Data Requirements - Dicamba

| Data Requirement | Composition1/ | Use 2/ Pattern | Does EPA Have Data To Satisfy This Requirement? (Yes, No or Partially) | Bibliographic Citation | Must Additional Data Be Submitted Under FIFRA Section 3(c)(2)(B)?3/ |
|---|---|---|---|---|---|
| 83-2 - Oncogenicity Study - 2 species: Rat and Mouse preferred | TGAI | A,B,D,H | No | - | Yes6/ |
| 83-3 - Teratogencity 2-species | TGAI | A,B,D,H | Yes | 00028263<br>00035373<br>00084023<br>00084024 | No |
| 83-4 - Reproduction, 2-generation | TGAI | A,B,D,H | Yes | 00028249 | No |
| MUTAGENICITY TESTING: | | | | | |
| 84-2 - Gene Mutation | TGAI | A,B,D,H | No | - | Yes7/ |
| 84-2 - Chromosomal Aberration | TGAI | A,B,D,H | No | - | Yes7/ |
| 84-2 - Other Mechanisms of mutagenicity | TGAI | A,B,D,H | No | - | Yes7/ |
| SPECIAL TESTING: | | | | | |
| 85-1 - General Metabolism | PAI or PAIRA | A,B,D,H | Yes | 00023107, 00028261<br>00025363, 00087667<br>00028257 | No |
| 85-2 - Domestic Animal - Safety | Choice | A,B,D,H | N/A4/ | | No |

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1/ Composition: TGAI = Technical grade of the active ingredient; PAI = Pure active ingredient; PAIRA = Pure active ingredient, radiolabelled; Choice = choice of several test species, depending on studies required.

2/ The use patterns are coded as follows: A = Terrestrial, Food Crop; B = Terrestrial, Non-Food; C = Aquatic, Food Crop; D = Aquatic, Non-Food; E = Greenhouse, Food Crop; F = Greenhouse, Non-Food; G = Forestry; H = Domestic Outdoor; I = Indoor.

3/ Data submitted no later than four years after the issue date of the guidance package.

4/ N/A = Not applicable; Data requirement is not necessary for the purposes of this standard.

5/ Two chronic studies are needed, one in the rat and one in another species.

6/ Two oncogencity studies are needed, one in the rat and one in another species.

7/ The following mutagenicity data are required:

a. A test for gene mutation in bacterial (Salmonella typhinium) plate test to include strains TA98 and TA100 with and without activations.

b. A test for gene mutation in mammalian cells in culture (e.g. mouse lymphoma >51784 cells using TK locus).

c. A test for DNA repair induction: in vivo mammalian sister chromatid exchange test.

d. A test for chromopsome effects (either in vivo or in vitro mammalian chromosome aberrations analysis).

WILDLIFE AND AQUATIC ORGANISMS
Table A
Generic Data Requirements - Dicamba

| Data Requirement | Composition1/ | Use 2/ Pattern | Does EPA Have Data To Satisfy This Requirement? (Yes, No or Partially) | Bibliographic Citation | Must Additional Data Be Submitted Under FIFRA Section 3(c)(2)(B)?3/ |
|---|---|---|---|---|---|
| §158.145 Wildlife and Aquatic Organisms | | | | | |
| 71-1 - Avian Single-Dose Oral $LD_{50}$ | TGAI | A,B,H | Partially | 00046180, 00073275<br>00104679 | Yes |
| 71-2 - Avian Dietary $LC_{50}$ upland gamebird | TGAI | A,B,H | Yes | 00025391 | No |
| waterfowl | | | Yes | 0037638<br>00022527, 000346935/<br>00023697, 00046181<br>00025317, 00046182<br>00025328, 00094860<br>00030102, 00104697 | No |
| 71-4 - Avian Reproduction | | | N/A4/ | | No |
| 71-5 - Simulated and Actual Field Testing for Mammals & Birds | | | N/A4/ | | No |
| 72-1 - Fish Acute $LC_{50}$ warmwater | TGAI | A,B,D,H | Yes | 00034703 | No |
| coldwater | | | Yes | 00041272, GS0065-3<br>00022530, 000461835/<br>00029623, 00094861<br>00036915, 00094862 | No |
| | TEP | D | No | | Yes |
| 72-2 - Aquatic Invertebrate | TGAI | A,B,D,H | Yes | 00052126, GS0065-3 | No |
| Acute $EC_{50}$ | TEP | D | No | 00028283, 000948635/<br>00022539, 00046184 | |
| 72-3 - Estuarine & Marine | TGAI | A,B,D | Yes6/ | 00025390, 00034702 | No |
| Organism Acute $LC_{50}$ | | | | 000347045/ | |
| 72-4 - Fish Early Life-Stage Aquatic Invertebrate Life Cycle | | | N/A4/ | | No |
| 72-5 - Fish Life Cycle | | | N/A4/ | | No |

WILDLIFE AND AQUATIC ORGANISMS
Table A
Generic Data Requirements - Dicamba

| Data Requirement | Composition1/ | Use 2/ Pattern | Does EPA Have Data To Satisfy This Requirement? (Yes, No or Partially) | Bibliographic Citation | Must Additional Data Be Submitted Under FIFRA Section 3(c)(2)(B)?3/ |
|---|---|---|---|---|---|
| §158.145 Wildlife and Aquatic Organisms (continued) | | | | | |
| 72-6 - Aquatic Organism Accumulation | | | N/A4/ | | No |
| 72-7 - Simulated or Actual Field Testing for Aquatic Organisms | | | N/A4/ | | No |
| §158-155 Nontarget Insect | | | | | |
| NONTARGET INSECT TESTING - POLLINATORS: | | | | | |
| 141-1 - Honey bee acute contact $LD_{50}$ | TGAI | A,B | Yes | 00036935 | No |
| 141-2 - Honey bee - toxicity of residues on foliage | TEP | No | | | No |
| 141-3 - Wild bees important in alfalfa pollination - toxicity of residues on foliage | TEP | No | | | No |
| 141-4 - Honey bee subacute feeding study | [Reserved]4/ | | | | |
| 141-5 - Field testing for pollinators | TEP | No | | | No |
| NONTARGET INSECT TESTING - AQUATIC INSECTS: | | | | | |
| 142-1 - Aquatic toxicity to aquatic insects | [Reserved]5/ | | | | |
| 142-2 - Aquatic insect | [Reserved]5/ | | | | |
| 142-3 - Simulated or actual field testing for aquatic insects | [Reserved]5/ | | | | |

WILDLIFE AND AQUATIC ORGANISMS
Table A
Generic Data Requirements - Dicamba

| Data Requirement | Composition1/ | Use 2/ Pattern | Does EPA Have Data To Satisfy This Requirement? (Yes, No or Partially) | Bibliographic Citation | Must Additional Data Be Submitted Under FIFRA Section 3(c)(2)(B)?3/ |
|---|---|---|---|---|---|
| §158-155 Nontarget Insect (continued) | | | | | |
| 143-1 thru 143-3 - NONTARGET INSECT TESTING-PREDATORS AND PARASITES | [Reserved]5/ | | | | |

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1/ Composition: TGAI = Technical Grade Active Ingredient; TEP = Typecal End-use Product.
2/ The use patterns are coded as follows: A = Terrestrial Food Crop; B = Terrestrial, Non-food; C = Aquatic, Food Crop;
3/ Data should be submitted no later than four years after the issue date of the guidance package.
4/ N/A = Not applicable, data requirement is not necessary for purposes of this standard.
5/ Studies provide supplemental information only.
6/ Data are not required at this time for purposes of this Standard.

## PRODUCT CHEMISTRY
## Table B
## Product Specific Data Requirements For Manufacturing-Use Products Containing Dicamba

| Data Requirement | Composition1/ | Does EPA Have Data to Satisfy This Requirement? (Yes, No or Partially) | Bibliographic Citation | Must Additional Data Be Submitted Under FIFRA Section 3(c)(2)(B)? |
|---|---|---|---|---|
| **§158.120 Product Chemistry** | | | | |
| **Product Identity:** | | | | |
| 61-1 - Product Identity and Disclosure of Ingredients | MUP | Yes | 00035914, 00066365, 00066372, GS0065-22<br>00038389, 00066366, 00082611, GS0065-23<br>00066360, 00066367, GS0065-9, GS0065-24<br>00066362, 00066368, GS0065-10, GS0065-25<br>00066363, 00066369, GS0065-15, GS0065-26<br>00066364, 00066370, GS0065-16, GS0065-27<br>GS0065-19, GS0065-31 | No |
| Description of Manufacturing Process | MUP | Yes | 00028339, 00066353, 00066363<br>00028354, 00066354, 00066364<br>00038389, 00066355, 00082610<br>00066346, 00066358, 00082611<br>00066347, 00066361, GS0065-22<br>00066348, 00066362 | No |
| Discussion of Formation of Unintentional Ingredients | MUP | Yes | 00035914, 00066365, 00066372, GS0065-22<br>00038389, 00066366, 00082611, GS0065-23<br>00066360, 00066367, GS0065-9, GS0065-24<br>00066362, 00066368, GS0065-10, GS0065-25<br>00066363, 00066369, GS0065-15, GS0065-26<br>00066364, 00066370, GS0065-27, GS0065-27<br>GS0065-19, GS0065-31 | No |
| **Analysis and Certification of Product Ingredients** | | | | |
| 62-1 Preliminary Analysis | MUP | Partial | GS0065-24<br>GS0065-31 | Yes2/ 6 months |
| 62-2 Certification of Limits | MUP | Partial | GS0065-24<br>GS0065-31 | Yes3/ 6 months |
| 62-3 Analytical Methods for Enforcement of Limits | MUP | Yes | GS0065-24<br>GS0065-31 | No |
| **Physical and Chemical Characteristics** | | | | |
| 63-2 - Color | MUP | Yes | 00028358, GS0065-22<br>00066365, GS0065-25<br>GS0065-26 | No |

PRODUCT CHEMISTRY
Table B
Product Specific Data Requirements For
Manufacturing-Use Products Containing Dicamba

| Data Requirement | Composition1/ | Does EPA Have Data to Satisfy This Requirement? (Yes, No or Partially) | Bibliographic Citation | Must Additional Data Be Submitted Under FIFRA Section 3(c)(2)(B)? |
|---|---|---|---|---|
| §158.120 Product Chemistry (cont'd) | | | | |
| Physical and Chemical Characteristics | | | | |
| 63-3 = Physical state | MUP | Yes | 00066365<br>GS0065-22<br>GS0065-25<br>GS0065-26 | No |
| 63-4 = Odor | MUP | Yes | 0006365 | No |
| 63-7 = Density, bulk density or specific gravity | MUP | Yes | 00066365 | No |
| 63-12 = pH | MUP | Yes | 00066365 | No |
| 63-14 = Oxidizing/Reducing Action | MUP | Yes | 00066365 | No |
| 63-15 = Flammability | MUP (for combustible liquids only) | N/A4/ | | No |
| 63-16 = Explodability | MUP | Yes | 00066365 | No |
| 63-17 = Storage stability | MUP | Yes | 00066365 | No |
| 63-18 = Viscosity | MUP (for liquid products | N/A4/ | | No |
| 63-19 = Miscibility | MUP (for emulsifiable liquid products | N/A4/ | | No |
| 63-20 = Corrosion | MUP | Yes | 00066365 | No |

This table reflects the status of data requirements for the MUP of dicamba which is equivalent to the data in Table A. All of the requirements of this table would apply to a new MUP.

1/ Composition: MUP = Manufacturing-use product.
2/ Analytical results on a minimum of 5 lots from the manufacturing process are required.
3/ A Certification of ingredient limits must be supplied.
4/ N/A = Not applicable: Data requirement is not necessary for purposes of this Standard.

## III. REQUIREMENT FOR SUBMISSION OF PRODUCT-SPECIFIC DATA

Note: This chapter applies only to manufacturing-use products, not end-use products.

A necessary first step in determining which statements must appear on your product's label is the completion and submission to EPA of product-specific data* listed on the form entitled "Product Specific Data Report" (EPA Form 8580-4, Appendix III-1) to fill "gaps" identified by EPA concerning your product. Under the authority of FIFRA Section 3(c)(2)(B), EPA has determined that you must submit these data to EPA in order to register or reregister your product(s). All of these data must be submitted not later than six months after you receive this guidance document.

"Product-Specific Data Requirements for Manufacturing-Use Products" appearing in Table B permit you to determine which product-specific data you must submit. This can be done by examining the entries in the column of those tables entitled "Must Data Be Submitted Under §3(c)(2)(B)."

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*/ Product specific data pertains to data that support the formulation which is marketed; it usually includes product chemistry data and acute toxicology data.

## IV. SUBMISSION OF REVISED LABELING AND PACKAGING INFORMATION

Note: This chapter applies only to manufacturing-use products, not end-use products.

The Agency requires applicants for registration or reregistration to ensure that each label (1) contains accurate, complete, and sufficient instructions and precautions, reflecting the results of data concerning the product and its ingredients, and (2) incorporates labeling format and terminology which are sufficiently standardized to avoid user confusion.

As part of your application, you will be required to submit draft labeling consistent with: applicable product-specific data; the precautionary statements and use directions; and the regulations concerning classification [40 CFR §162.11(c)], packaging [40 CFR §162.16], and labeling [40 CFR §162.10], as indicated by the following paragraphs of this chapter of the guidance document.

You will be informed later when you must submit the revised labeling set forth in this guidance package.

### A. Label Contents

40 CFR §162.10 requires that certain specific labeling statements must appear at certain locations on the label. This is referred to as format labeling. Specific label items listed below are keyed to Tables D, E, and F (Appendix IV-2).

Item 1. PRODUCT NAME - The name, brand, or trademark is required to be located on the front panel, preferably centered in the upper part of the panel. The name of a product will not be accepted if it is false or misleading. [40 CFR §162.10(b)]

Item 2. COMPANY NAME AND ADDRESS - The name and address of the registrant or distributor is required on the label. The name and address should preferably be located at the bottom of the front panel or at the end of the label text. [40 CFR §162.10(c)]

Item 3. NET CONTENTS - A net content statement is required on all labels. The preferred location is the bottom of the front panel immediately above the company name and address, or at the end of the label text. The net contents must be stated in terms of weight, expressed as avoirdupois pounds and ounces, and stated in terms of the largest suitable unit, i.e., "1 pound 10 ounces" rather than "26 ounces." In addition to the required units specified, net contents may be expressed in metric units. [40 CFR §162.10(d)]

Item 4. EPA REGISTRATION NUMBER - The registration number assigned to the pesticide product must appear on the label, preceded by the phrase "EPA Registration No.," or "EPA Reg. No." The registration number must be set in type of a size and style similar to other print on that part of the label on which it appears and must run parallel to it. The registration number and the required identifying phrase must not appear in such a manner as to suggest or imply recommendation or endorsement of the product by the Agency. [40 CFR §162.10(e)]

Item 5. EPA ESTABLISHMENT NUMBER - The EPA establishment number, preceded by the phrase "EPA Est." is the final establishment at which the product was produced, and may appear in any suitable location on the label or immediate container. It must also appear on the wrapper or outside container of the package if the EPA establishment registration number on the immediate container cannot be clearly read through such wrapper or container. [40 CFR §162.10(f)]

Item 6. INGREDIENT STATEMENT - An ingredient statement is required on the front panel and must contain the name and percentage by weight of each active ingredient and the total percentage by weight of all inert ingredients. The preferred location is immediately below the product name. The ingredient statement must run parallel with, and be clearly distinguished from, other text on the panel. It must not be placed in the body of other text. [40 CFR 162.10(g)]

Item 6A. POUNDS PER GALLON STATEMENT - For liquid agricultural formulations, the pounds per gallon of active ingredient must be indicated on the label.

Item 7. FRONT LABEL PRECAUTIONARY STATEMENTS - All labels are required to have precautionary statements grouped together on the front panel, preferably within a block outline. The table below shows the minimum type size requirements on various size labels, as set forth in the Regulations.

| Size of Label on Front Panel in Square Inches | Signal Word as Required Minimum Type Size All Capitals | "Keep Out of Reach of Children" as Required |
|---|---|---|
| 5 and under | 6 point | 6 point |
| above 5 to 10 | 10 point | 6 point |
| above 10 to 15 | 12 point | 8 point |
| above 15 to 30 | 14 point | 10 point |
| over 30 | 18 point | 12 point |

Item 7A. CHILD HAZARD WARNING STATEMENT - All labels are required to have the statement "Keep Out of Reach of Children" located on the front panel above the signal word except where contact with children during distribution or use is unlikely. [40 CFR §162.10(h)(1)(ii)]

Item 7B. SIGNAL WORD - The signal word (Caution, Warning, or Danger) is required on the front panel immediately below the child hazard warning statement. [40 CFR §162.10 (h)(1)(i)]

Item 7C. SKULL & CROSSBONES AND WORD "POISON" - On products assigned a toxicity Category I on the basis of oral, inhalation, or dermal toxicity, the word "Poison" shall appear on the label in red on a background of distinctly contrasting color and the skull and crossbones shall appear in immediate proximity to the word poison. [40 CFR §162.10(h)(1)(i)]

Item 7D. STATEMENT OF PRACTICAL TREATMENT - A statement of practical treatment (first aid or other) shall appear on the label of pesticide products in toxicity Categories I, II, and III. [40 CFR §162.10(h)(1)(iii)]

Item 7E. REFERRAL STATEMENT - The statement "See Side (or Back) Panel for Additional Precautionary Statements" is required on the front panel for all products, unless all required precautionary statements appear on the front panel. [40 CFR §162.10(h)(1)(iii)]

Item 8. SIDE/BACK PANEL PRECAUTIONARY LABELING - The precautionary statements as listed below must appear together on the label under the heading "PRECAUTIONARY STATEMENTS." The preferred location is at the top of the side or back panel preceding the directions for use, and it is preferred that these statements be surrounded by a block outline. Each of the three hazard warning statements must be headed by the appropriate hazard title. [40 CFR §162.10 (h)(2)]

Item 8A. HAZARD TO HUMANS AND DOMESTIC ANIMALS - Where a hazard exists to humans or domestic animals, precautionary statements are required indicating the particular hazard, the route(s) of exposure and the precautions taken to avoid accident, injury or damage. [40 CFR §162.10 (h)(2)(i)]

Item 8B. ENVIRONMENTAL HAZARD - Where a hazard exists to non-target organisms excluding humans and domestic animals, precautionary statements are required stating the nature of the hazard and the appropriate precautions to avoid potential accident, injury, or damage. [40 CFR §162.10(h)(2)(ii)]

Item 8C. PHYSICAL OR CHEMICAL HAZARD

1. Flammability statement. Precautionary statements relating to flammability of a product are required to appear on the label if it meets the criteria in Appendix IV-3. The requirement is based on the results of the flashpoint determinations and flame extension tests required to be submitted for all products. These statements are to be located in the side/back panel precautionary statements section, preceded by the heading "Physical/Chemical Hazards." Note that no signal word is used in conjunction with the flammability statements.

2. Criteria for declaration of non-flammability. The following criteria will be used to determine if a product is non-flammable:

   a. A "non-flammable gas" is a gas (or mixture of gases) that will not ignite when a lighted match is placed against the open cylinder valve.

   b. A "non-flammable liquid" is one having a flashpoint greater than 350°F (177°C) as determined by the method specified in 40 CFR §163.61-8(c)(13)(ii) of Subpart D.

   c. A "non-flammable aerosol" is one which meets the following criteria:

      i. The flame extension is zero inches, using the method specified in 40 CFR §163.61-8(c)(13)(ii;

      ii. There is no flash back; and

      iii. The flashpoint of the non-volatile liquid component is greater than 350°F (177°C), determined by the method specified in 40 CFR §163.61-8(c)(13)(i).

3. Declaration of non-flammability. Products which meet the criteria for non-flammability specified above may bear the notation "non-flammable" or "nonflammable (gas, liquid, etc.)" on the label.

   It may appear as a substatement to the ingredients statement, or on a back or side panel, but shall not be highlighted or emphasized (as with an inordinately large type size) in any way that may detract from precaution.

4. Other physical/chemical hazard statements. When chemistry data submitted in accordance with 40 CFR §163.61-10(c) demonstrate hazards of a physical or chemical nature other than flammability, appropriate statements of hazard will be prescribed. Such statements may address hazards of explosivity, oxidizing or reducing capability, or mixing with other substances to produce toxic fumes.

Item 9. MISUSE STATEMENT - The following statement is required on your label: "It is a violation of Federal law to use this product in a manner inconsistent with its labeling." [40 CFR §162.10(1)(2)(ii)]

Item 10A. STORAGE AND DISPOSAL BLOCK - All labels are required to bear storage and disposal statements. These statements are developed for specific containers, sizes, and chemical content. Make certain that the statement you use pertains specifically to your product. These instructions must be grouped and appear under the heading "Storage and Disposal" in the directions for use. This heading must be set in the same type sizes as required for the child hazard warning. Refer to Appendix IV-5 for the latest specific storage and disposal product label statements.

Item 10B. DIRECTIONS FOR USE - Directions for use must be stated in terms which can be easily read and understood by the average person likely to use or to supervise the use of the pesticide. When followed, directions must be adequate to protect the public from fraud and from personal injury and to prevent unreasonable adverse effects on the environment. [40 CFR §162.10]

### B. Collateral Information

Bulletins, leaflets, circulars, brochures, data sheets, flyers, and other graphic printed matter which is referred to on the label or which is to accompany the product are termed collateral labeling. Such labeling may not bear claims or representations that differ in substance from those accepted in connection with registration of the product. It should be made part of the response to this notice and submitted for review.

## V. INSTRUCTIONS FOR SUBMISSION

All applications prepared in response to this Notice should be addressed as follows:

Mr. Robert Taylor
Phone No. (703) 557-1800
Registration Division (TS-767)
Office of Pesticide Programs
Environmental Protection Agency
Washington, D.C. 20460

For each product for which continued registration is desired:

1. Within 90 days from receipt of this document, you must submit the "FIFRA Section 3(c)(2)(B) Summary Sheet" EPA Form 8580-1. Refer to Appendix II-2 with appropriate attachments.

2. Within 6 months from receipt of this document registrants must submit:

   a. Confidential Statement of Formula, EPA Form 8570-4.

   b. Product Specific Data Report, EPA Form 8580-4 (Appendix III-1).

   c. Two copies of any required product-specific data.

3. Within the time set forth in Table A, all generic data must be submitted by the affected registrant(s).

Note: If for any reason any required test is delayed or aborted so that meeting the agreed submission time will be delayed, notify the Product Manager listed above.

You will be informed at a later date when you must submit your Application for Amended Pesticide Registration (EPA Form 8570-1) and the revised labeling set forth in this guidance package.

## Guide to Use of This Bibliography

1. CONTENT OF BIBLIOGRAPHY. This bibliography contains citations of all studies considered relevant by EPA in arriving at the positions and conclusions stated elsewhere in the Standard. Primary sources for studies in this bibliography have been the body of data submitted to EPA and its predecessor agencies in support of past regulatory decisions. Selections from other sources including the published literature, in those instances where they have been considered, will be included.

2. UNITS OF ENTRY. The unit of entry in this bibliography is called a "study." In the case of published materials, this corresponds closely to an article. In the case of unpublished materials submitted to the Agency, the Agency has sought to identify documents at a level parallel to the published article from within the typically larger volumes in which they were submitted. The resulting "studies" generally have a distinct title (or at least a single subject), can stand alone for purposes of review, and can be described with a conventional bibliographic citation. The Agency has attempted also to unite basic documents and commentaries upon them, treating them as a single study.

3. IDENTIFICATION OF ENTRIES. The entries in this bibliography are sorted numerically by "Master Record Identifier," or MRID, number. This number is unique to the citation, and should be used at any time specific reference is required. It is not related to the six-digit "Accession Number" which has been used to identify volumes of submitted studies; see paragraph 4(d)(4) below for a further explanation. In a few cases, entries added to the bibliography late in the review may be preceded by a nine-character temporary identifier. These entries are listed after all MRID entries. This temporary identifier number is also to be used whenever specific reference is needed.

4. FORM OF ENTRY. In addition to the Master Record Identifier (MRID), each entry consists of a citation containing standard elements followed, in the case of material submitted to EPA, by a description of the earliest known submission. Bibliographic conventions used reflect the standards of the American National Standards Institute (ANSI), expanded to provide for certain special needs.

    a. Author. Whenever the Agency could confidently identify one, the Agency has chosen to show a personal author. When no individual was identified, the Agency has shown an identifiable laboratory or testing facility as author. As a last resort, the Agency has shown the first submitter as author.

b. Document Date. When the date appears as four digits with no question marks, the Agency took it directly from the document. When a four-digit date is followed by a question mark, the bibliographer deduced the date from evidence in the document. When the date appears as (19??), the Agency was unable to determine or estimate the date of the document.

c. Title. In some cases, it has been necessary for Agency bibliographers to create or enhance a document title. Any such editorial insertions are contained between square brackets.

d. Trailing Parentheses. For studies submitted to the Agency in the past, the trailing parentheses include (in addition to any self-explanatory text) the following elements describing the earliest known submission:

   (1) Submission Date. The date of the earliest known submission appears immediately following the word "received."

   (2) Administrative Number. The next element, immediately following the word "under," is the registration number, experimental use permit number, petition number, or other administrative number associated with the earliest known submission.

   (3) Submitter. The third element is the submitter, following the phrase "submitted by." When authorship is defaulted to the submitter, this element is omitted.

   (4) Volume Identification (Accession Numbers). The final element in the trailing parentheses identifies the EPA accession number of the volume in which the original submission of the study appears. The six-digit accession number follows the symbol "CDL," standing for "Company Data Library." This accession number is in turn followed by an alphabetic suffix which shows the relative position of the study within the volume. For example, within accession number 123456, the first study would be 123456-A; the second, 123456-B; the 26th, 123456-Z; and the 27th, 123456-AA.

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GS0065-19 Velsicol Chemical Corporation (1972) Letter answering comments in EPA letter of May 16, 1972. [Received May 16, 1972 under PP No. 1F1131; RCB-117251]

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*OMB Approval No. 2000-0468 (Expires 12-31-83)*

# FIFRA SECTION 3(C)(2)(B) SUMMARY SHEET

EPA REGISTRATION NO.

PRODUCT NAME

APPLICANT'S NAME

DATE GUIDANCE DOCUMENT ISSUED

With respect to the requirement to submit "generic" data imposed by the FIFRA section 3(C)(2)(B) notice contained in the referenced Guidance Document, I am responding in the following manner:

☐ 1. I will submit data in a timely manner to satisfy the following requirements. If the test procedures I will use deviate from (or are not specified in) the Registration Guidelines or the Protocols contained in the Reports of Expert Groups to the Chemicals Group, OECD Chemicals Testing Programme, I enclose the protocols that I will use:

☐ 2. I have entered into an agreement with one or more other registrants under FIFRA section 3(C)(2)(B)(ii) to satisfy the following data requirements. The tests, and any required protocols, will be submitted to EPA by:

NAME OF OTHER REGISTRANT

☐ 3. I enclose a completed "Certification of Attempt to Enter Into an Agreement with Other Registrants for Development of Data" with respect to the following data requirements:

☐ 4. I request that you amend my registration by deleting the following uses (this option is not available to applicants for new products):

☐ 5. I request voluntary cancellation of the registration of this product. (This option is not available to applicants for new products.)

| | | |
|---|---|---|
| REGISTRANT'S AUTHORIZED REPRESENTATIVE | SIGNATURE | DATE |

EPA Form 8580-1 (10-82)

*OMB Approval No. 2000-0468 (Expires: 12-31-83)*

# CERTIFICATION OF ATTEMPT TO ENTER INTO AN AGREEMENT WITH OTHER REGISTRANTS FOR DEVELOPMENT OF DATA

*(To qualify, certify ALL four items)*

1. I am duly authorized to represent the following firm(s) who are subject to the requirements of a Notice under FIFRA Section 3(c)(2)(B) contained in a Guidance Document to submit data concerning the active ingredient:

GUIDANCE DOCUMENT DATE

ACTIVE INGREDIENT

| NAME OF FIRM | EPA COMPANY NUMBER |
|---|---|
| | |
| | |
| | |
| | |

(This firm or group of firms is referred to below as "my firm".)

2. My firm is willing to develop and submit the data as required by that Notice, if necessary. However, my firm would prefer to enter into an agreement with one or more other registrants to develop jointly, or to share in the cost of developing, the following required items or data:

3. My firm has offered in writing to enter into such an agreement. Copies of the offers are attached. That offer was irrevocable and included an offer to be bound by an arbitration decision under FIFRA Section 3(c)(2)(B)(iii) if final agreement on all terms could not be reached otherwise. This offer was made to the following firm(s) on the following date(s):

| NAME OF FIRM | DATE OF OFFER |
|---|---|
| | |
| | |
| | |
| | |

However, none of those firm(s) accepted my offer.

4. My firm requests that EPA not suspend the registration(s) of my firm's product(s), if any of the firms named in paragraph (3) above have agreed to submit the data listed in paragraph (2) above in accordance with the Notice. I understand EPA will promptly inform me whether my firm must submit data to avoid suspension of its registration(s) under FIFRA Section 3(c)(2)(B). (This statement does not apply to applicants for new products.) I give EPA permission to disclose this statement upon request.

| TYPED NAME | SIGNATURE | DATE |
|---|---|---|
| | | |

EPA Form 8580-6 (10-82)

Appendix III-1

## PRODUCT SPECIFIC DATA REPORT

EPA Registration No.________________ Guidance Document for__________________________

Date______________________________

| Registration Guideline No. | Name of Test | Test not required for my product listed above (check below) | I am complying with data requirements by | | (For EPA Use Only) Accession Numbers Assigned |
|---|---|---|---|---|---|
| | | | Citing MRID# | Submitting Data (Attached) | |
| §158.20 PRODUCT CHEMISTRY | | | | | |
| 61-1 | Identity of ingredients | | | | |
| 61-2 | Statement of composition | | | | |
| 61-3 | Discussion of formation of ingredients | | | | |
| 62-1 | Preliminary analysis | | | | |
| 62-2 | Certification of limits | | | | |
| 62-3 | Analytical methods for enforcement limits | | | | |
| 63-2 | Color | | | | |
| 63-3 | Physical state | | | | |
| 63-4 | Odor | | | | |
| 63-5 | Melting point | | | | |
| 63-6 | Boiling point | | | | |
| 63-7 | Density, bulk-density, or specific gravity | | | | |
| 63-8 | Solubility | | | | |
| 63-9 | Vapor pressure | | | | |
| 63-10 | Dissociation constant | | | | |
| 63-11 | Octanol/water partition coefficient | | | | |
| 63-12 | pH | | | | |

| | | | | | |
|---|---|---|---|---|---|
| 63-13 | Stability | | | | |
| 63-14 | Oxidizing/reducing reaction | | | | |
| 63-15 | Flammability | | | | |
| 63-16 | Explodability | | | | |
| 63-17 | Storage stability | | | | |
| 63-18 | Viscosity | | | | |
| 63-19 | Miscibility | | | | |
| 63-20 | Corrosion characteristics | | | | |
| 63-21 | Dielectric breakdown voltage | | | | |
| §158.135 TOXICOLOGY | | | | | |
| 81-1 | Acute oral LD-50, rat | | | | |
| 81-2 | Acute dermal LD-50 | | | | |
| 81-3 | Acute inhalation, LC-50 rat | | | | |
| 81-4 | Primary eye irritation, rabbit | | | | |
| 81-5 | Primary dermal irritation | | | | |
| 81-6 | Dermal sensitization | | | | |

APPENDIX IV-2

## LABELING REQUIREMENTS OF THE FIFRA, AS AMENDED

| ITEM | LABEL ELEMENT | APPLICABILITY OF REQUIREMENT | PLACEMENT ON LABEL | | COMMENTS |
|---|---|---|---|---|---|
| | | | REQUIRED | PREFERRED | |
| 1 | Product name | All products | Front panel | Center front panel | |
| 2 | Company name and address | All products | None | Bottom front panel or end of label text | If registrant is not the producer, must be qualified by "Packed for . . .," "Distributed by. . .," etc. |
| 3 | Net contents | All products | None | Bottom front panel or end of label text | May be in metric units in addition to U.S. units |
| 4 | EPA Est. No. | All products | None | Front panel | Must be in similar type size and run parallel to other type. |
| 5 | EPA Reg. No. | All products | None | Front panel, immediately before or following Reg. No. | May appear on the container instead of the label. |
| 6A | Ingredients statement | All products | Front panel | Immediately following product name | Text must run parallel with other text on the panel. |
| 6B | Pounds/gallon statement | Liquid products where dosage given as lbs. ai/unit area | Front panel | Directly below the main ingredients statement | |
| 7 | Front panel precautionary statements | All products | Front panel | | All front panel precautionary statements must be grouped together, preferably blocked. |
| 7A | Keep Out of Reach of Children (Child hazard warning) | All products | Front panel | Above signal word | Note type size requirements. |
| 7B | Signal word | All products | Front panel | Immediately below child hazard warning | Note type size requirements. |

| ITEM | LABEL ELEMENT | APPLICABILITY OF REQUIREMENT | PLACEMENT ON LABEL |  | COMMENTS |
|---|---|---|---|---|---|
|  |  |  | REQUIRED | PREFERRED |  |
| 7C | Skull & crossbones and word POISON (in red) | All products which are Category I based on oral, dermal, or inhalation toxicity | Front panel | Both in close proximity to signal word |  |
| 7D | Statement of practical treatment | All products in Categories I, II, and III | Category I:<br>Front panel unless referral statement is used.<br>Others:<br>Grouped with side panel precautionary statements. | Front panel for all. |  |
| 7E | Referral statement | All products where precautionary labeling appears on other than front panel. | Front panel |  |  |
| 8 | Side/back panel precautionary statements | All products | None | Top or side of back panel preceding directions for use | Must be grouped under the headings in 8A, 8B, and 8C; preferably blocked. |
| 8A | Hazards to humans and domestic animals | All products in Categories I, II, and III | None | Same as above | Must be preceded by appropriate signal word. |
| 8B | Environmental hazards | All products | None | Same as above | Environmental hazards include bee caution where applicable. |

| ITEM | LABEL ELEMENT | APPLICABILITY OF REQUIREMENT | PLACEMENT ON LABEL | | COMMENTS |
|---|---|---|---|---|---|
| | | | REQUIRED | PREFERRED | |
| 8C | Physical or chemical hazards | All pressurized products, others with flash points under 150°F | None | Same as above | |
| 9A | Restricted block | All restricted products | Top center of front panel | Preferably blocked | Includes a statement of the terms of restriction. The words "RESTRICTED USE PESTICIDE" must be same type size as signal word. |
| 9C | Misuse statement | All products | Immediately following statement of classification or ahead of directions for use | | |
| 10A | Re-entry statement | All cholinesterase inhibitors | In the directions for use | Immediately after misuse statement | |
| 10C | Storage and disposal block | All products | In the directions for use | Immediately before specific directions for use or at the end of directions for use | Must be set apart and clearly distinguishable from from other directions for use. |
| 10D U.S. | Directions for use | All products | None | None | May be in metric as well as U.S. units |

Appendix IV-3

## PHYSICAL-CHEMICAL HAZARDS

| Criteria | Required Label Statement |
|---|---|
| I. Pressurized Containers | |
| A. Flashpoint at or below 20°F; or if there is a flashback at any valve opening. | Extremely flammable. Contents under pressure. Keep away from fire, sparks, and heated surfaces. Do not puncture or incinerate container. Exposure to temperatures above 130°F may cause bursting. |
| B. Flashpoint above 20°F and not over 80°F; or if the flame extension is more than 18 inches long at a distance of 6 inches from the valve opening. | Flammable. Contents under pressure. Keep away from heat, sparks, and flame. Do not puncture or incinerate container. Exposure to temperatures above 130°F may cause bursting. |
| C. ALL OTHER PRESSURIZED CONTAINERS | Contents under pressure. Do not use or store near heat or open flame. Do not puncture or incinerate container. Exposure to temperatures above 130°F may cause bursting. |
| II. Non-Pressurized Containers | |
| A. Flashpoint at or below 20°F. | Extremely flammable. Keep away from fire, sparks, and heated surfaces. |
| B. Flashpoint above 20°F and over 80°F. | Flammable. Keep away from heat and open flame. |
| C. Flashpoint over 80°F and not over 150°F. | Do not use or store near heat and open flame. |
| D. Flashpoint above 150°F. | None required. |

## STORAGE AND DISPOSAL INSTRUCTIONS FOR PESTICIDES

All products are required to bear specific label instructions about storage and disposal. Storage and disposal instructions must be grouped together in the directions for use portion of the label under the heading STORAGE AND DISPOSAL. Products intended solely for domestic use need not include the heading "STORAGE AND DISPOSAL." The STORAGE AND DISPOSAL heading must appear in the minimum type size listed below:

| Size of label front panel in square inches | Required type size for the heading STORAGE AND DISPOSAL (all capitals) |
|---|---|
| 10 and under | .6 point |
| Above 10 to 15 | .8 point |
| Above 15 to 30 | 10 point |
| Over 30 | 12 point |

Storage and disposal instructions must be set apart and clearly distinguishable from other directions for use. Blocking storage and disposal statements with a solid line is suggested as a means of increasing their prominence.

### A. Storage Instructions:

All product labels are required to have appropriate storage instructions. Specific storage instructions are not prescribed. Each registrant must develop his own storage instructions, considering, when applicable, the following factors:

1. Conditions of storage that might alter the composition or usefulness of the pesticide. Examples could be temperature extremes, excessive moisture or humidity, heat, sunlight, friction, or contaminating substances or media.

2. Physical requirements of storage which might adversely affect the container of the product and its ability to continue to function properly. Requirements might include positioning of the container in storage, storage or damage due to stacking, penetration of moisture, and ability to withstand shock or friction.

3. Specifications for handling the pesticide container, including movement of container within the storage area, proper opening and closing procedures (particularly for opened containers), and measures to minimize exposure while opening or closing container.

4. Instructions on what to do if the container is damaged in any way, or if the pesticide is leaking or has been spilled, and precautions to minimize exposure if damage occurs.

5. General precautions concerning locked storage, storage in original container only, and separation of pesticides during storage to prevent cross-contamination of other pesticides, fertilizer, food, and feed.

6. General storage instructions for household products should emphasize storage in original container and placement in locked storage areas.

B. Pesticide Disposal Instructions:

The label of all products, except those intended solely for domestic use, must bear explicit instructions about pesticide disposal. The statements listed below contain the exact wording that must appear on the label of these products:

1. The labels of all products, except domestic use, must contain the statement, "Do not contaminate water, food, or feed by storage or disposal."

2. Except those products intended solely for domestic use, the labels of all products that contain active ingredients appearing on the "Acutely Hazardous" Commercial Pesticide Products List (RCRA "E" List) at the end of this appendix or are assigned to Toxicity Category I on the basis of oral or dermal toxicity, skin or eye irritation potential, or Toxicity Category I or II on the basis of acute inhalation toxicity must bear the following pesticide disposal statement:

   "Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance."

The labels of all products, except those intended for domestic use, containing active or inert ingredients that appear on the "Toxic" Commercial Pesticide Products List (RCRA "F" List) at the end of this appendix or presently meet any of the criteria in Subpart C, 40 CFR 261 for a hazardous waste must bear the following pesticide disposal statement:

"Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance."

Labels for all other products, except those intended for domestic use, must bear the following pesticide disposal statement:

"Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility."

3. Products intended for domestic use only must bear the following disposal statement: "Securely wrap original container in several layers of newspaper and discard in trash."

C. Container Disposal Instructions

The label of each product must bear container disposal instructions appropriate to the type of container.

1. All products intended for domestic use must bear one of the following container disposal statements:

| Container Type | Statement |
|---|---|
| Non-aerosol products (bottles, cans, jars) | Do not reuse container (bottle, can, jar). Rinse thoroughly before discarding in trash. |
| Non-aerosol products (bags) | Do not reuse bag. Discard bag in trash. |
| Aerosol products | Replace cap and discard containers in trash. Do not incinerate or puncture. |

2. The labels for all other products must bear container disposal instructions, based on container type, listed below:

| Container Type | Statement |
|---|---|
| Metal containers (non-aerosol) | Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities. |
| Plastic containers | Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke. |
| Glass containers | Triple rinse (or equivalent). Then dispose of in a sanitary landfill or by other approved state and local procedures. |

| Container Type | Statement |
|---|---|
| Fiber drums with liners | Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application equipment. Then dispose of liner in a sanitary landfill or by incineration if allowed by state and local authorities. If drum is contaminated and cannot be reused[1], dispose of in the same manner. |
| Paper and plastic bags | Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke. |
| Compressed gas cylinders | Return empty cylinder for reuse (or similar wording). |

[1] Manufacturer may replace this phrase with one indicating whether and how fiber drum may be reused.

3. The labels for all other products must bear container disposal instructions, based on container type, listed on the first page of this Appendix.

Pesticides that are hazardous wastes under 40 CFR 261.33(e) and (f) when discarded.

## "Acutely Hazardous" Commercial Pesticides (RCRA "E" List) Active Ingredients, (no inerts):

Acrolein
Aldicarb
Aldrin
Allyl alcohol
Aluminum phosphide
4-Aminopyridine
Arsenic acid
Arsenic pentoxide
Arsenic trioxide
Calcium cyanide
Carbon disulfide
p-Chloroaniline
Cyanides (soluble cyanide salts, not specified elsewere)
Cyanogen chloride
2-Cyclohexyl-4,6-dinitrophenol
Dieldrin
0,0-Diethyl S-[2-ethylthio)ethyl] phosphorodithioate
(disulfoton, Di-Syston)
0,0-Diethyl 0-pyrazinyl phosphorothioate (Zinophos)
Dimethoate
0,0-Dimethyl 0-p-nitrophenyl phosphorothioate (methyl parathion)
4,6-Dinitro-o-cresol and salts
4,6-Dinitro-o-cyclohexylphenol
2,4 Dinitrophenol
Dinoseb
Endosulfan
Endothall
Endrin
Famphur
Fluoroacetamide
Heptachlor
Hexanethyl tetraphosphate
Hydrocyanic acid
Hydrogen cyanide
Methomyl
alpha-Naphthylthiourea (ANTU)
Nicotine and salts
Octamethylpyrophosphoramide (OMPA, schradan)
Parathion

## "Acutely Hazardous" Commercial Pesticides (RCRA "E" List)
## Active Ingredients continued:

Phenylmercuric acetate (PMA)
Phorate
Potassium cyanide
Propargyl alcohol
Sodium azide
Sodium cyanide
Sodium fluoroacetate
Strychnine and salts
0,0,0,0-Tetraethyl dithiopyrophosphate (sulfotepp)
Tetraethyl pyrophosphate
Thallium sulfate
Thiofanox
Toxaphene
Warfarin
Zinc phosphide

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There are currently no inert ingredients for commercial pesticides on the "Acutely Hazardous" List (RCRA "E" List).

## "Acutely Hazardous" Commercial Pesticides (RCRA "E" List) Active Ingredients continued:

Phenylmercuric acetate (PMA)
Phorate
Potassium cyanide
Propargyl alcohol
Sodium azide
Sodium cyanide
Sodium fluoroacetate
Strychnine and salts
O,O,O,O-Tetraethyl dithiopyrophosphate (sulfotepp)
Tetraethyl pyrophosphate
Thallium sulfate
Thiofanox
Toxaphene
Warfarin
Zinc phosphide

---

There are currently no inert ingredients for commercial pesticides on the "Acutely Hazardous" List (RCRA "E" List).

## "Toxic" Commercial Pesticide Products (RCRA "F" List)
## Active Ingredients:

Acetone
Acrylonitrile
Amitrole
Benzene
Bis(2-ethylhexyl)pthalate
Cacodylic acid
Carbon tetrachloride
Chloral (hydrate)
Chlordane (technical)
Chlorobenzene
4-Chloro-m-cresol
Chloroform
o-Chlorophenol
4-Chloro-o-toluidine hydrochloride
Creosote
Cresylic acid
Cyclohexane
Decachlorooctahydro-1,3,4-metheno-2H-cyclobuta[c,d]-pentalen-2-one
    (kepone, chlordecone)
1,2-Dibromo-3-chloropropane (DBCP)
Dibutyl phthalate
S-3,3-(Dichloroallyl diisopropylthiocarbamate (diallate, Avadex)
o-Dichlorobenzene
p-Dichlorobenzene
Dichlorodifluoromethane (Freon 12®)
3,5-Dichloro-N-(1,1-dimethyl-2-propynyl) benzamide (pronamide,Kerb)
Dichloro diphenyl dichloroethane (DDD)
Dichloro diphenyl trichloroethane (DDT)
Dichlorethyl ether
2,4-Dichlorophenoxyacetic, esters and salts (2,4-D)
1,2-Dichloropropane
1,3-Dichloropropane (Telone)
Dimethyl phthalate
Ethyl acetate
Ethyl 4,4'-dichlorobenzilate (chlorobenzilate)
Ethylene dibromide (EDB)
Ethylene dichloride
Ethylene oxide
Formaldehyde
Furfural
Hexachlorobenzene
Hexachlorocyclopentadiene
Hexachloroethane
Hydrofluoric acid

## "Toxic" Commercial Pesticide Products (RCRA "F" List) Active Ingredients:

Isobutyl alcohol
Lead acetate
Lindane
Maleic hydrazide
Mercury
Methyl alcohol
Methyl bromide
Methyl chloride
2,2'-Methylenebis (3,4,6-trichlorophenol) (hexachlorophene)
Methylene chloride
Methyl ethyl ketone
4-Methyl-2-pentanone (methyl isobutyl ketone)
Naphthalene
Nitrobenzene
p-Nitrophenol
Pentachloroethane
Pentachloronitrobenzene (PCNB)
Pentaclorophenol
Phenol
Phosphorodithioic acid, 0,0-diethyl, methyl ester
Propylene dichloride
Pyridine
Resorcinol
Safrole
Selenium disulfide
Silvex
1,2,4,5-Tetrachlorobenzene
1,1,2,2-Tetrachloroethane
Tetrachloroethylene
2,3,4,6-Tetrachlorophenol
Thiram
Toluene
1,1,1-Trichloroethane
Trichloroethylene
Trichloromonofluoromethane (Freon 11®)
2,4,5-Trichlorophenol
2,4,6-Trichlorophenol
2,4,5-Trichlorophenoxyacetic acid (2,4,5-T)
Xylene

Appendix IV-5
(continued)

## "Toxic" Commercial Pesticide Products (RCRA "F" List) Inert Ingredients:

Acetone
Acetonitrile
Acetophenone
Acrylic acid
Aniline
Benzene
Chlorobenzene
Chloroform
Cyclohexane
Cyclohexanone
Dichlorodifluoromethane (Freon 12®)
Diethyl phthalate
Dimethylamine
Dimethyl phthalate
1,4-Dioxane
Ethylene oxide
Formaldehyde
Formic acid
Isobutyl alcohol
Meleic anhydride
Methyl alcohol (methanol)
Methyl ethyl ketone
Methyl methacrylate
Naphthalene
Saccharin and salts
Thiourea
Toluene
1,1,1-Trichloroethane
1,1,2-Trichloroethane
Trichlorofluoromethane (Freon 11®)
Vinyl chloride
Xylene

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**
**WASHINGTON, D.C. 20460**

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

CERTIFIED MAIL

SUBJECT: Initiation of Reregistration Process for Pesticide Products Containing Dicamba as the Single Active Ingredient

Dear Registrant:

In accordance with the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, EPA's Office of Pesticide Programs has begun the reregistration process for pesticide products containing the subject ingredient. Significant changes to the statute were made in 1972, 1975, and 1978; thus, current requirements may be substantially different from those in effect at the time your product(s) were registered. The first phase of reregistration requires that you (1) make a commitment to the Agency regarding data development and (2) subsequently submit revised product labeling and associated information.

This mailing contains the Guidance Document for preparation of submissions, as well as a listing of your affected product(s) (Attachment A), and a separate list of registrants with products subject to this standard and which contain this active ingredient (Attachment B). The latter list is for the purpose of cooperative data development.

The Guidance Document sets out the Agency's evaluation of all available data pertaining to the subject chemical and its registered uses, and its rationale for the regulatory actions being taken at this time. Additionally, the Guidance Document contains instructions describing certain of the steps you must take to maintain registration for your product(s). Products not brought into compliance with the Guidance Document as supplemented by subsequent information from EPA about compliance with certain data support requirements will be subject to suspension and/or cancellation.

Specifically, the enclosed Guidance Document does the following:

1. Introduces the purpose of this document.
2. Explains the Agency's policy regarding data submission and identifies, in table format, the data that must be submitted to complete the Agency's evaluation of each product. In addition, a bibliography identifying the data which is considered part of the data base supporting the registration standard is included.
3. Sets out time-frames for submission of required data.
4. Explains how to revise labeling for maufacturing use products. (As the Guidance Document explains, labeling is not required at this time.)
5. Provides submission instructions.

Because of the variety and complexity of the requirements, and the short statutory time-frames available for certain actions, it is essential that you understand the specific requirements and procedures in order that you may respond in a correct and timely manner. Since a part of these requirements is under Section 3(c)(2)(B) of FIFRA, your first response may be required within 90 days from receipt of this letter. Please note that if you do not respond or do not comply fully with the requirements, your application may be rejected or your product registration cancelled or suspended.

If, after reviewing this material, you do not understand what you must do or how or when you must respond, please contact the Product Manager listed below who will assist you in every reasonable way. If you wish to discuss the data requirements or request that certain data be waived, you must write to the Agency and indicate those data requirements with which you take issue and your rationale for doing so. After the Agency has had a chance to review your submission, the Product Manager will contact you to set up a meeting for the purpose of resolving all issues relative to data requirements.

Please note that this guidance document will eventually be supplemented by EPA with additional information about compliance with data support requirements. In Monsanto v. Administrator, EPA was recently enjoined by the District Court for the Eastern District of Missouri from implementing in any way the "mandatory data licensing" aspects of §3(c)(1)(D) of FIFRA. EPA is assessing the implications of the injunction for the reregistration process. Because of this unresolved situation, EPA has decided to proceed with the requirements in this guidance package which do not relate to the "data licensing" issue and to supplement the package with additional guidance when circumstances permit.

If you have any questions concerning this Guidance Document, you may contact the Product Manager listed below:

Mr. Robert J. Taylor (Product Manager 25)
Registration Division (TS-767)
Office of Pesticide Programs
Environmental Protection Agency
Washington, D.C. 20460
Telephone: 703/557-1900

Sincerely,

Douglas D. Campt, Director
Registration Division (TS-767)

Enclosure

ATTACHMENT A

## PRODUCTS AFFECTED BY THIS REREGISTRATION PROCESS

Following is a list of your products affected by this reregistration process. If this list is incomplete or inaccurate in any way, please notify the Product Manager (PM) identified in the letter.

ATTACHMENT B

## REGISTRANTS WITH PESTICIDE PRODUCTS CONTAINING THE ACTIVE INGREDIENT

The information attached will allow registrants with pesticide products containing the above ingredient to contact one another regarding joint data development or sharing the cost of data development under section 3(c)(2)(B) of FIFRA. This information includes the following: EPA Reg. No., company name, company address, active ingredient, percentage of active ingredient and type of formulation, such as Manufacturing-Use Product (MP), Technical Product (TP), Wettable Powder (WP), and Emulsifiable Concentrate (EC).